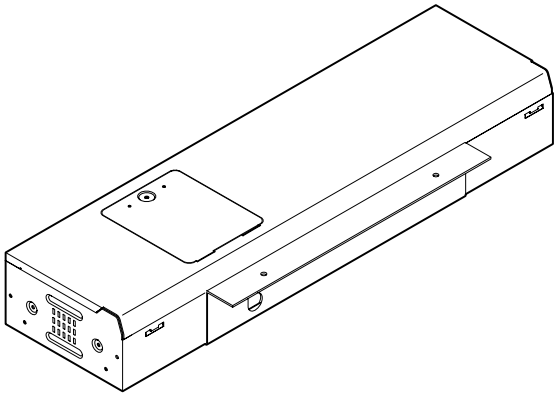
SHARP SERVICE MANUAL

CODE : 00ZARFX5//A1E



LASER PRINTER OPTIONS
FAX EXPANSION KIT
(For North America)

MODEL AR-FX5

OPTION AR-MM9

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Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

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The contents are subject to change without notice.

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[1] PRODUCT OUTLINE

This unit provides the FAX function and the PC-FAX function when installed to the following machines:

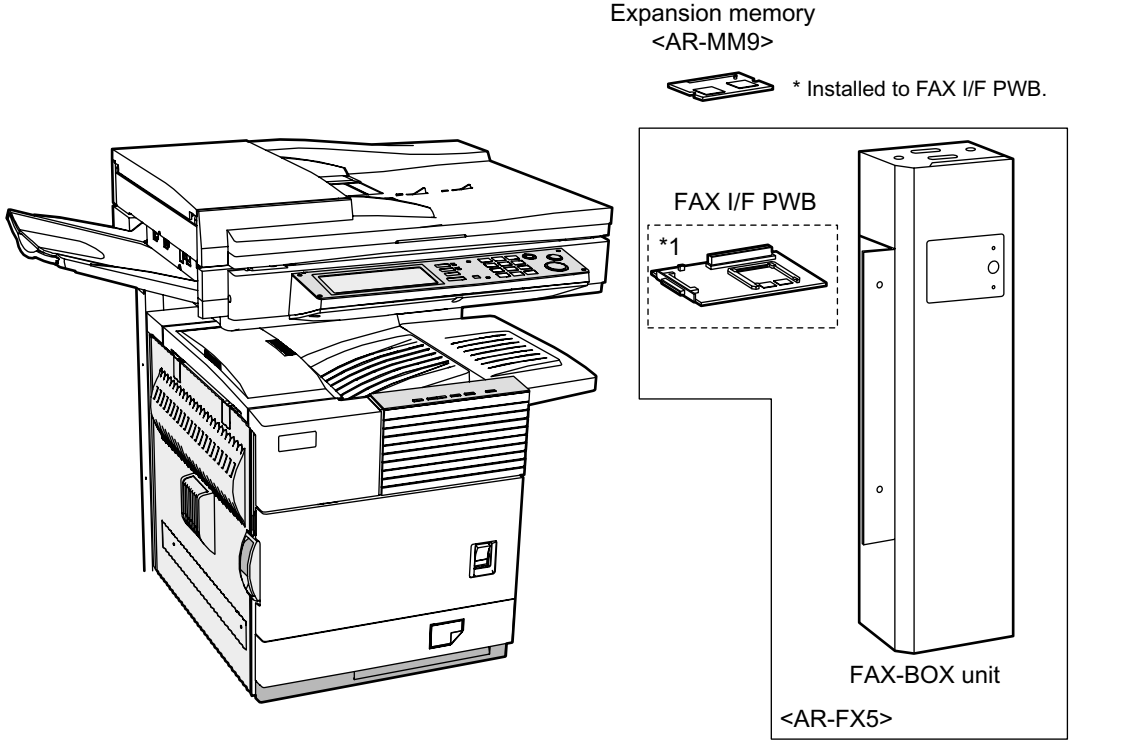
Machines to install this unit :

•AR-P350*/P450*
•AR-M350/M450

* The multi-function PWB (option/AR-M11) is required.

[2] CONFIGURATION

Before installation of this unit, the scanner unit with DSPF (AR-EF1) as well as the scanner rack (AR-RK1) must be installed in advanced.



*1) Installed to the machine MFP controller PWB.

[3] SPECIFICATIONS

1. FAX function

A. Transmission method

Transmission time	2 second level (Super G3) 6 second level (G3 ECM)
Compression method	MH, MR, MMR, JBIG
Modem speed	33.6kbps → 2.4kbps automatic fallback
Intercommunication	Super G3 / G3
Communication line	General telephone line (PSTN), Private branch exchange (PBX), FAX line
ECM	Available

B. Number of Support Line

Standard	1 line
Expansion	Not provided

C. Transmission Mode

DSPF/OC transmission switching	Available (Switching during the reading is not feasible)

D. Fax Image Quality/Image Process

Half tone reproduction	Equivalent to 256 levels
Exposure adjustment	Dark / Auto / Light
Quality selection	Half-tone ON/OFF
Resolution*	Standard (8x3.85 lines / 203.2x97.8dpi) Fine (8x7.7 lines / 203.2x195.6dpi) Super Fine (8x15.4 lines / 203.2x391dpi) Ultra Fine (16x15.4 lines / 406.4x391dpi)

E. Record Size

Max. record width	293mm
Record size	A3~A5, 11"x17"~5.5"x8.5"

F. Dial

Manual dialing	To be entered by 10-key, # key, * key
Chain dialig	To be used in conjunction with Pause, up to 64 digits
Re-dialing	To recall the latest number dialed with 10-key
One-touch dial	500 destinations (E-mail address included)
Abbreviated dialing	Not available
Group dialing	To be registered in the one-touch dialing
Dial search	Alphabet order search, User index groups
Program	8 destinations
Handset	Japan only

G. Definition of Multiple Destinations

Usable dials	Manual dial, One-touch dial and Group dial
Definable destination	Max. 300 destinations
Sequential broadcasting	Available
Simultaneous Scan to E-mail	Available (Specifying multiple destinations among FAX, E-mail and transmit with 1 scan)
Sequential transmission request	Available (FAX mode only)

H. F code transmission

Sub address	Available
Password	Available

I. Memory for Transmit/Receive

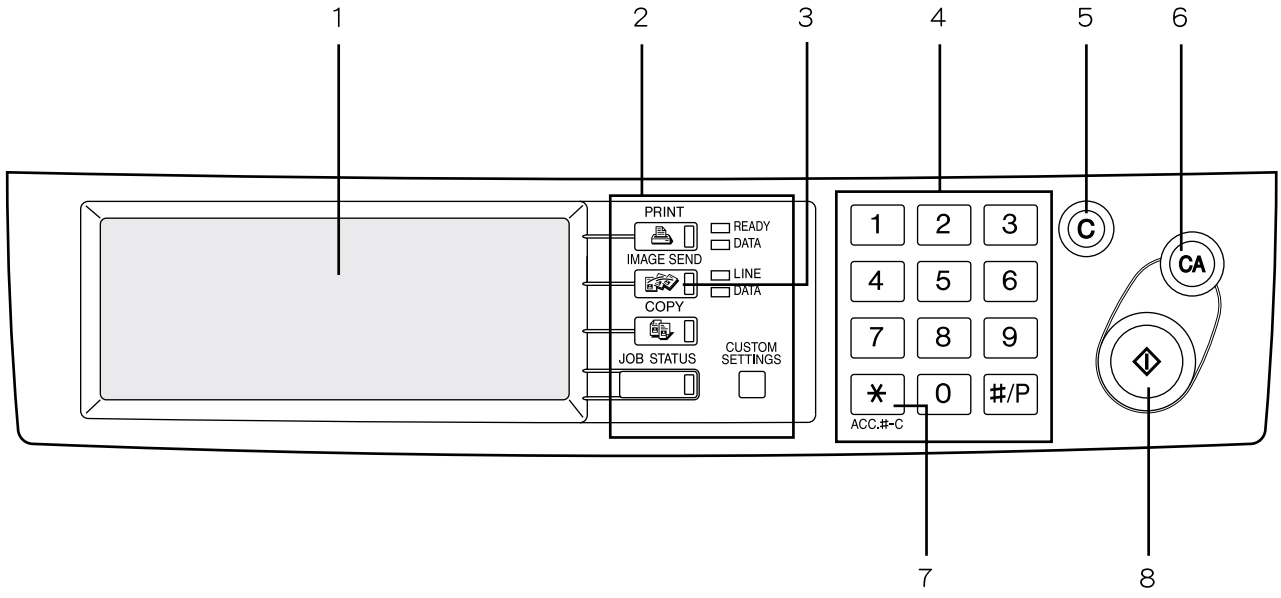
Standard	Data back-up with 2MB flash Memory
Memory expansion	Expandable

J. Function

Transmit function	Memory transmit	Available (Definable destinations : 50 destinations)
	On-hook	Available
	Quick online transmit	Available
	Direct transmit	At on-hook only
	Auto reduction transmit	Available A3 → B4, A3 → A4, B4 → A4
	Rotation transmit	Available
	Re-call mode	Available (Re-call times/interval of time to be set by key operator program)
	Book original transmit	Available
	Long length original transmit	Available
	Verification stamp function	Option
Receive function	Auto receive	Available
	Manual receive	Available
	Memory receive	Available
	Reduced receive for standard size	Available
	Scaling receive for specified size	Available
	Rotation receive	Available
	Divided receive	Available (To be defined by key operator program)
	Duplex receive	Available (To be defined by key operator program)
	2 in 1 receive	Not available
	Authorized receive only for specified number	Not available
	Prohibited receive only for specified number	Not available
	Auto switching between TEL/FAX	Not available
	External phone connection, remote	Available
	Answering phone connection	Not available
	Transfer function at output trouble	Available
	Auto wake up mode	Available
	Call hold	Not available
Special function	Time setting	Available
	Transmit request	Available
	Remote transmit	Available
	Cover function	Not available
	Print at sender	Available
	Page division	Available
	Page combination	Not available
	Confidential	Available (F code method)
	Transmit broadcast direction	Available (F code method)
	Transmit message	Not available
	Scaling transmit	Not available
Report/List function	Transmit/receive record	Available
	Transmit/receive result	Available
	Address/phone directory list	Available
	Group list	Available
	Sender list	Available
	Confidential box check list	Not available (Integrated to the memory box list)
	Transmit group list	Not available (Integrated to the memory box list)
	Program list	Available
	Reserved transmit list	Not available
	Memory box list	Available (FAX mode only)
	Memory clear notice list	Available (FAX mode only)

[4] EXTERNAL VIEWS AND INTERNAL STRUCTURES

1. Operation panel



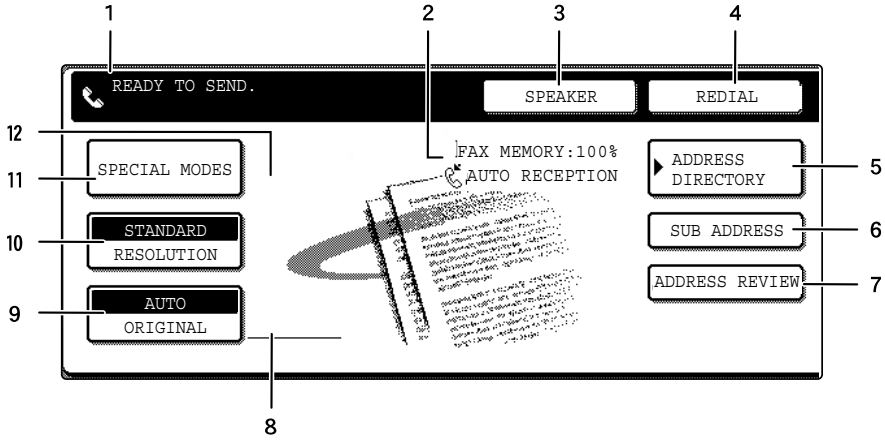
1	Touch panel	The machine status, messages and touch keys are displayed on the panel. The display will change to show the status of print, copy, network scanner or fax according to which of those modes is selected.
2	Mode select keys	Use to select the basic modes of the product.
3	IMAGE SEND key	Press to select fax mode and display the basic screen of fax mode.
4	Numeric keys	Use to enter fax numbers, sub-addresses, passcodes, and numerical settings.
5	C key (clear key)	Use to clear a mistake when entering fax numbers, sub-addresses, passcodes, and numerical settings. One digit is cleared each time you press the key. When an original is being scanned, this key can also be used to cancel scanning.
6	CA key	Use to cancel a transmission or programming operation. When the key is pressed, the operation is canceled and you return to the initial screen When sending a fax, this key is also used to cancel an image setting, paper size setting, or special function.
7	* key	This is used to produce tone signals when you are on a pulse dial line.
8	Start key	Press to begin scanning an original for fax transmission.

2. FAX mode (Condition setting screen)

The condition setting screen of fax mode is displayed by pressing the IMAGE SEND key while the print mode, copy mode, or job status screen appears in the touch panel. In the explanations that follow, it is assumed that the initial screen that appears after pressing the IMAGE SEND key is the condition setting screen (shown below). If you have set the display to show the address directory (following page) when the IMAGE SEND key is pressed, touch the CONDITION SETTINGS key in the address directory to display the condition setting screen.
The key operator program can be used to set the display to show either the condition setting screen (shown below) or the address directory screen (following page) when the IMAGE SEND key is pressed.

A.Condition setting screen

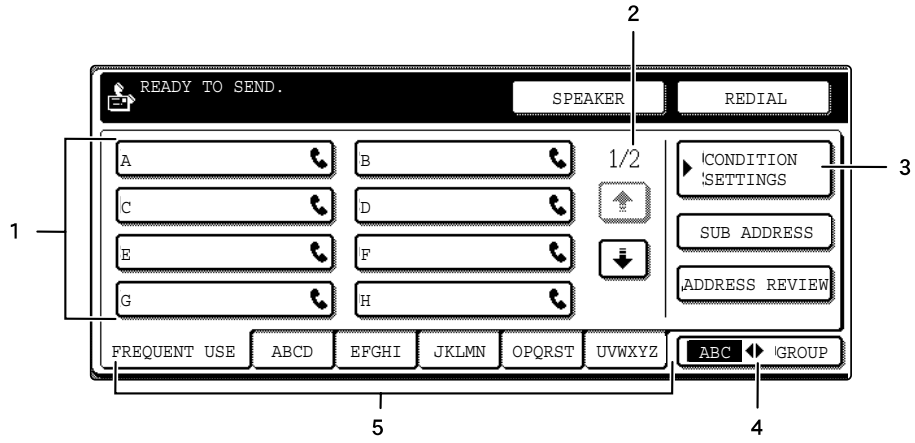
The display is initially set (factory setting) to show the following condition setting screen as the initial screen.



1	Message display	Messages appear here to indicate the current status of the machine. When the machine is ready to send, an icon appears to the left.
2	Memory and reception mode display	This shows the amount of fax memory that is free and the currently selected reception mode.
3	SPEAKER key	This key is used for dialing with the speaker. During dialing it changes into the PAUSE key, and after pressing the SUB ADDRESS key it changes into the SPACE key.
4	REDIAL key	Touch this key to redial the most recently dialed number. After dialing, this key changes into the NEXT ADDRESS key.
5	ADDRESS DIRECTORY key	This displays the Address Directory screen (next page). Touch this key when you want to use an auto-dial number (one-touch dialing or group dialing).
6	SUB ADDRESS key	Touch this key to enter a sub-address or passcode.
7	ADDRESS REVIEW key	When performing a broadcast transmission, touch this key to check your selected destinations. Your selected destinations will appear as a list, and the list can be edited.
8	Two-sided scanning and verification stamp icon display	Icons appear here when you touch the ORIGINAL key and select two-sided scanning and/or the verification stamp function (when the optional verification stamp unit is installed). The icons can be touched to open function selection screens.
9	ORIGINAL key	Touch this key when you wish to manually set the size of the original to be scanned, scan both sides of the original, or use the verification stamp option.
10	RESOLUTION key	Touch this key to change the resolution setting for the original to be scanned. The selected resolution setting will be highlighted above the key. The initial factory setting is STANDARD.
11	SPECIAL MODES key	Touch this key to select one of the following special functions: •Timer transmission •Polling •Dual page scan •Exposure •Program •Memory box
12	Special function icon display	When a special function such as polling or dual page scan is selected, a special function icon appears here.

B. Address directory screen (alphabetically ordered)

If you have set the initial screen to the address directory screen using the key operator program, the initial screen will appear as follows.



1	One-touch key display	This shows the one-touch keys that have been stored on the selected "index card". The key type is indicated by the icon at the right. One-touch keys in which a fax number is stored are indicated by a " " icon. The display is initially set to show 8 keys. This can be changed to 6 or 12 using the key operator program.
2	Display switching keys	In cases where the one-touch keys cannot all be displayed on one screen, this shows how many screens are left. Touch the "[↑]" "[↓]" keys to move through the screens.
3	CONDITION SETTINGS key	This displays the condition setting screen (previous page), which is used to set various conditions.
4	ABC ◆▶ GROUP key	Touch this key to switch between the alphabetical index and the group index.
5	Index keys	One-touch key destinations are stored on each of these index cards (alphabetical index or group index). Touch an index key to display the card. Group indexes make it possible to store one-touch keys by group with an assigned name for easy reference. This is done with the custom settings. Frequently used one-touch key destinations can be stored on the FREQUENT USE card for convenient access.

NOTE :

•The screen showed above is the alphabetical address directory. If desired, the initial screen can be set to the group address directory

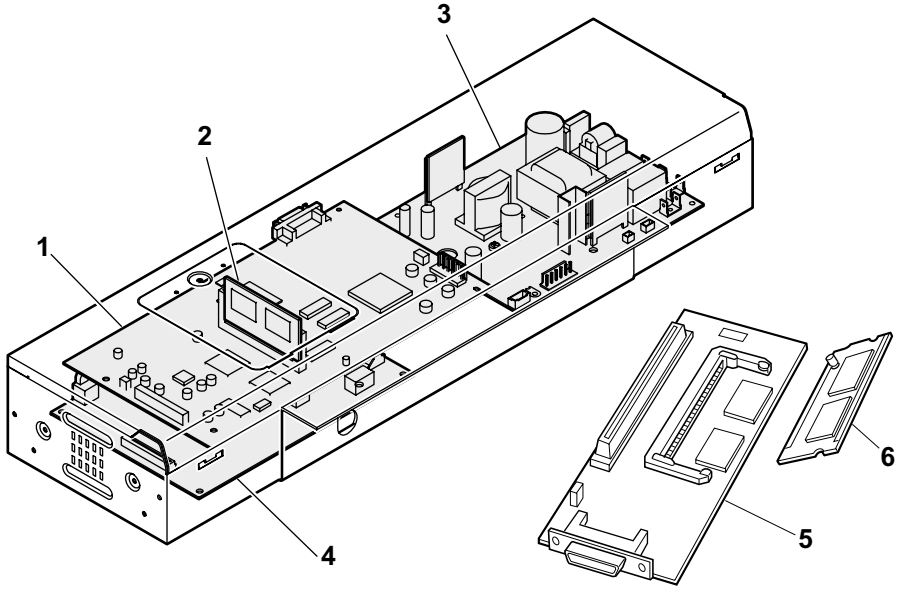
•If the Network Scanner option has been installed, one-touch keys in which a destination other than a fax number is stored are indicated by the following icons:

: Scan to E-mail destination

: Scan to FTP destination

: Scan to Desktop destination

3. PWB

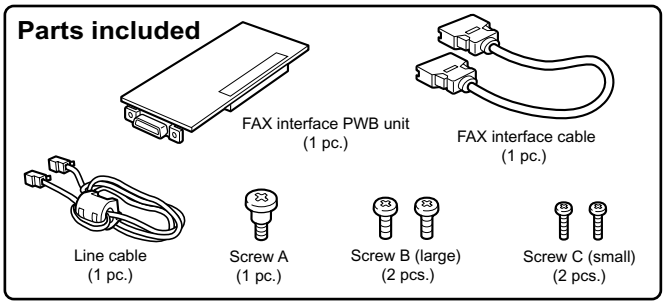


1	Modem control PWB	FAX communication control
2	FAX FLASH ROM PWB	FAX control program
3	FAX power PWB	Supplies power to the FAX unit.
4	TEL/LIU PWB	TEL line communication control
5	FAX interface PWB (Installed to the machine side)	Connection between FAX and MFP controller
6	FAX expansion memory (Installed to the machine side)	

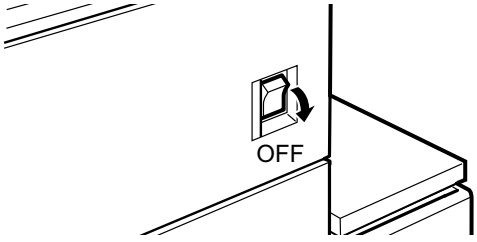
[5] UNPACKING AND INSTALLATION

<Before installation>

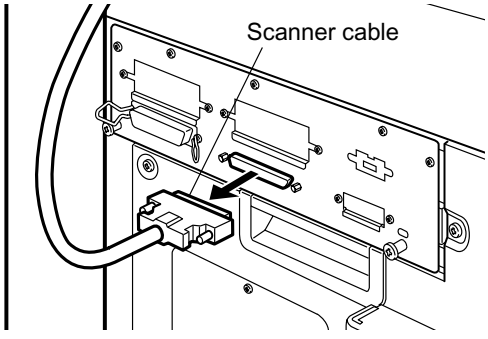
•For installation of AR-FX5, an MFP control PWB unit and a scanner unit must have been installed.
•Start installation after checking that the communication indicator on the operation panel is not lit or blinking.



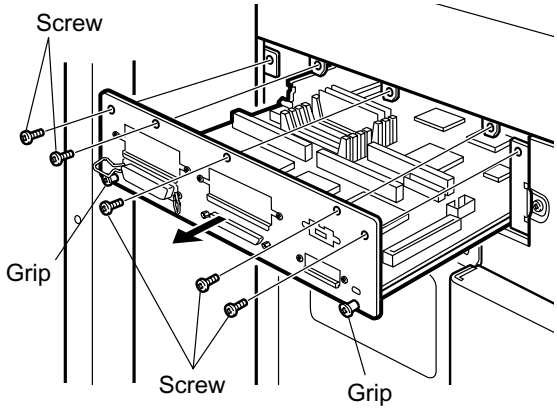
1) Turn the main switch of the printer to OFF.
Turn the main switch located on the front of the printer to OFF.
Then, remove the power plug of the printer from the outlet.



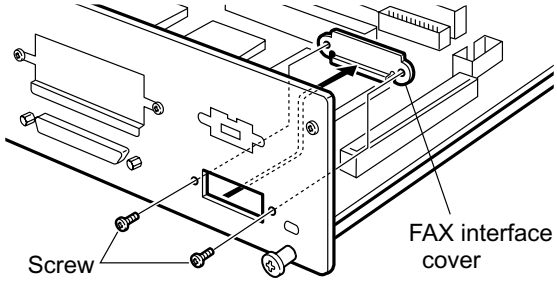
2) Remove the MFP control PWB unit.
<1>Remove the scanner cable from the printer.



<2>Remove the two screws that secure the MFP control PWB unit to the printer.
Then, hold the two grips and pull out the MFP control PWB unit to remove it from the printer.



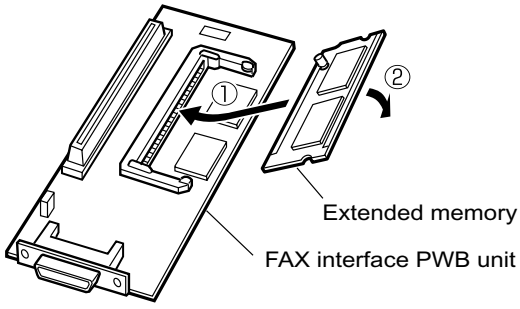
3) Remove the FAX interface cover.
Remove the two screws that secure the FAX interface cover of the MFP control PWB unit and remove the FAX interface cover.



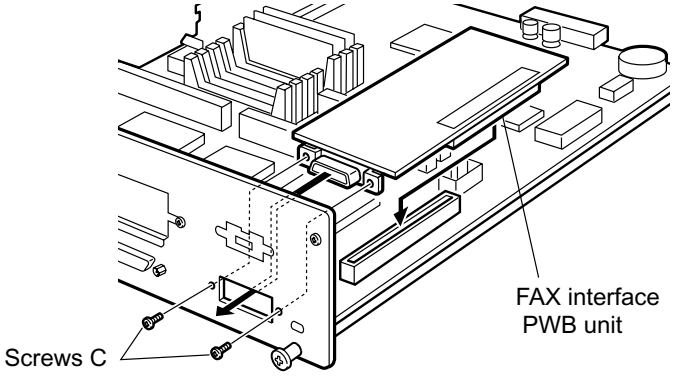
Step in case of mounting extended memory (AR-MM9)

•If you need not mount an extended memory, proceed to step 5).

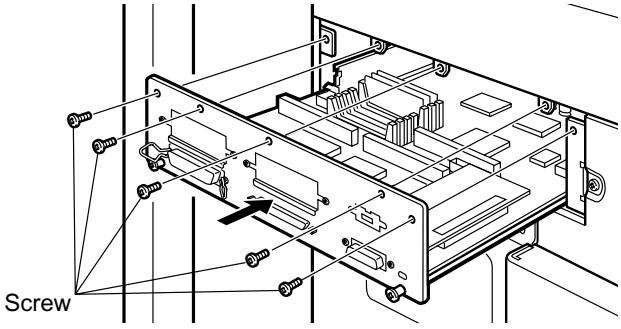
4) Mount an extended memory.
Mount an extended memory to the socket on the front surface of the FAX interface PWB unit.



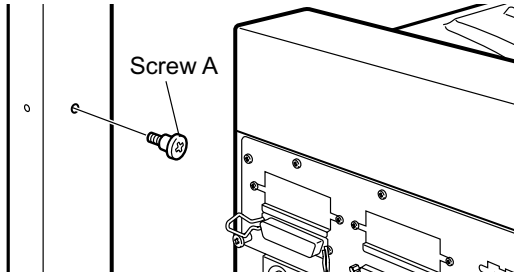
5) Attach the FAX interface PWB unit.
Connect the FAX interface PWB unit to the FAX interface PWB connector (100 pins) of the MFP control PWB unit and secure the unit with two screws C.



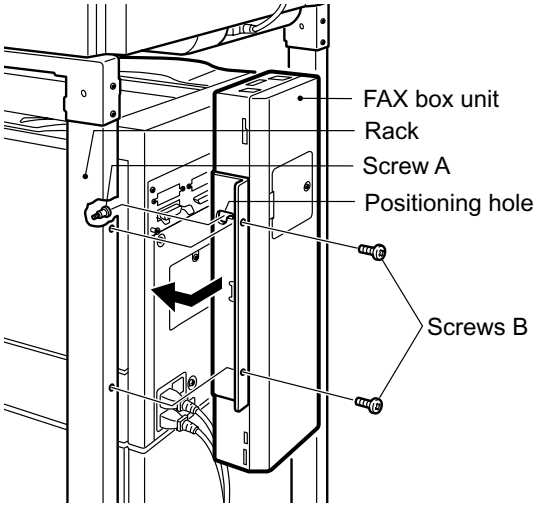
6) Reattach the MFP control PWB unit.
Reattach the MFP control PWB unit to the printer and secure it with the two screws.



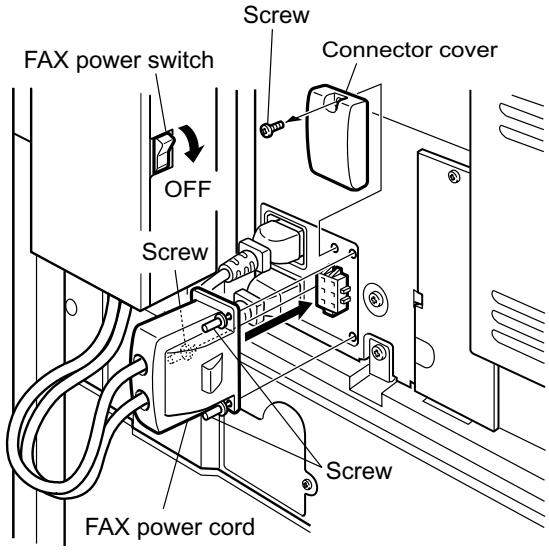
7) Attach the FAX box unit.
<1>Secure screw A to the rack.



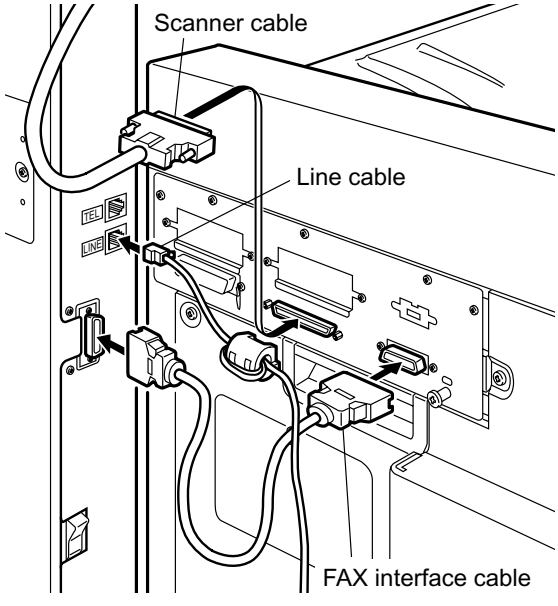
<2> Hang the positioning hole on the side of the FAX box unit on screw A, slide the FAX box unit toward the rack, and secure the rack and the FAX box unit with two screws B.



8) Attach the FAX power cord to the printer.
Remove the screw of the connector cover for connection of FAX power supply connector on the main unit of the printer, and remove the connector cover. Then, connect the FAX power supply connector to the connector on the main unit of the printer and tighten the three screws on the connector to secure the connector.
Ensure that the FAX power switch is in the OFF position.



9) Connect each connector of the FAX box unit.
Connect the FAX interface cable to the FAX box unit and the MFP control unit and then connect the line cable to the FAX box unit.
Connect the scanner cable that has been removed in step 2).



10) Turn the main switch of the printer to ON.
Insert the power plug of the printer to the outlet and turn the main switch and the FAX power switch of the FAX box unit to ON.

[6] SIMULATIONS, FAX SOFTWARE SWITCH

1. Entering the simulation mode

a. Nomal mode

Enter the copy mode and perform the following procedures.
[P] → [*] → [C] → [*] → [Main code] → [START] → [Sub code] → [START]

b. FAX mode

Enter the copy mode and perform the following procedures.
[9] → [*] → [8] → [#] → [7]

2. Switching the simulation mode

Press [USER SETTING] to return to the code entry screen.

3. Canceling the simulation mode

Press CA key to cancel the simulation mode.

4. Simulation list

Code		Function (Content)	Purpose	Section	Item	
Main	Sub					
22	5	Used to check the ROM version of each unit (section).	Other		Software	
	6	Used to print the list of adjustments and setup data (simulations, FAX soft switches, counters).	Adjustment, setup, operation data output, check (print)		Data	Setup, adjustment data
	11	Used to check the use frequency of FAX. (send/receive) (Only when FAX is installed.)	Adjustment, setup, operation data output, check (display)	FAX	Data	
24	10	Used to clear the FAX counter. (After completion of maintenance, this counter must be cleared.) (Only when FAX is installed.)	Data clear	FAX	Counter	
46	12	Used to adjust the print density in the FAX mode (all modes). An adjustment with this simulation affects all the copy density adjustment values. (Only when FAX is installed)	Adjustment		Picture quality	
	13	Used to adjust the print density in the FAX mode (Standard mode). (Only when FAX is installed.)	Adjustment		Picture quality	
	14	Used to adjust the print density in the FAX mode (Fine mode). (Only when FAX is installed.)	Adjustment		Picture quality	
	15	Used to adjust the print density in the FAX mode (Super Fine mode). (Only when FAX is installed.)	Adjustment		Picture quality	
	16	Used to adjust the print density in the FAX mode (Ultra Fine mode). (Only when FAX is installed.)	Adjustment		Picture quality	
61	3	Used to adjust laser power (absolute value) in the FAX reception mode. (Only when FAX is installed.)	Adjustment		Operation	
66	1	Used to set the FAX soft switch function. (Used to utilize the FAX soft switch function.)	Setup	FAX		
	2	Used to set the FAX soft switch setup to the default. (Except for the adjustment values)	Data clear	FAX	Data	
	3	Used to check the operations of FAX PWB memory (read/write). (This adjustment is required when replacing the PWB with a new one.)	Operation test, check	FAX	Data	
	4	Used to check the operations of data signal output in the FAX data output mode. (Used to check the MODEM operation.) Send level Max. (Only when FAX is installed.)	Operation test, check	FAX	Operation	
	5	Used to check the operations of data signal output in the FAX data output mode. (Used to check the MODEM operation.)Signals are sent in the send level set with the soft switch. (Only when FAX is installed.)	Operation test, check	FAX	Operation	
	6	Used to print the confidential password. (Used when the confidential password is forgotten.) (Only when FAX is installed.)	User data output, check (display, print)	FAX	Data	
	7	Used to print the image memory data (memory send, receive). (Only when FAX is installed.)	User data output, check (display, print)	FAX	Data	
	8	Used to check the output operation of the FAX sound signals. (Sound output IC operation check) Send level Max. (Only when FAX is installed.)	Operation test, check	FAX	Operation	
	9	Used to check the output operation of the FAX sound signals. (Sound output IC operation check) (Only when FAX is installed.)	Operation test, check	FAX	Operation	

Code		Function (Content)	Purpose	Section	Item	
Main	Sub					
66	10	Used to clear all data of image memory (memory send, receive). Confidential data are also cleared. (Only when FAX is installed.)	User data output, check (display, print)	FAX	Data	
	11	Used to check the output operation of FAX G3 mode 300BPS. (Used to check the MODEM operation.) Send level 0dB (Max.) (Only when FAX is installed.)	Operation test, check	FAX	Operation	
	12	Used to check the output operation of FAX G3 mode 300BPS. (Used to check the MODEM operation.) Signals are sent in the send level set with the soft switch. (Only when FAX is installed.)	Operation test, check	FAX	Operation	
	13	Used to enter (set) the number for the FAX dial signal output test. (The dial number signal set with this simulation is outputted in the dial signal output test with SIM 66-14~16) (Only when FAX is installed.)	Setup	FAX	Data	
	14	Used to set the make time in the FAX pulse dial mode (10PPS) and to test the dial signal output. (The dial number signal set with SIM 66-13 is outputted.) Used to check dialing troubles and the operation. (Only when FAX is installed.)	Setup	FAX	Operation	
	15	Used to set the make time in the FAX pulse dial mode (20PPS) and to test the dial signal output. (The dial number signal set with SIM 66-13 is outputted.) Used to check dialing troubles and the operation. (Only when FAX is installed.)	Setup	FAX	Operation	
	16	Used to test the dial signal (DTMF) output in the FAX tone dial mode. (The dial number signal set with SIM 66-13 is outputted.) The send level can be set to an optional level. Dialing troubles and operation.(Only when FAX is installed.)	Setup	FAX	Operation	
	17	Used to test the dial signal (DTMF) output in the Fax tone dial mode. Send level Max. Used to check the operation. (Only when FAX is installed.)	Setup	FAX	Operation	
	18	Used to test the dial signal (DTMF) in the FAX tone dial mode. The send level set with the soft switch is outputted. Used to check the operation. (Only when FAX is installed.)	Setup	FAX	Operation	
	19	Used to backup the FAX SRAM data into the flash Memory(Option FAX memory:AR-MM9) (Only when FAX is installed.)	Setup	FAX	Operation	
	20	Used to restore the backup data (SIM 66-19) to SRAM. (Only when FAX is installed.)	Setup	FAX	Operation	
	21	Used to print the FAX information (registrations, communication management, file management, system errors). (Only when FAX is installed.)	Adjustment, setup, operation data output, check (display, print)	FAX	Data	
	22	Used to adjust the handset sound volume. (Only when FAX is installed.)	Setup	FAX	Operation	
	23	Used to download the FAX program. (Only when FAX is installed.)	Inhibited	FAX		
	24	Used clear the FAST memory data. (Only when FAX is installed.)	Inhibited	FAX		
	25	Used to register the FAX number for MODEM dial-in. (Only when FAX is installed.)	Inhibited	FAX		
	26	Used to register the external telephone number for MODEM dial-in. (Only when FAX is installed.)	Inhibited	FAX		
	27	Used to register the voice-warp transfer number. (Only when FAX is installed.)	Inhibited	FAX		
	28	Used to record a sound message. (Only when FAX is installed.)	Inhibited	FAX		
	29	Used to clear the telephone directory. (Only when FAX is installed.)	Setup	FAX	Operation	
	30	Used to check TEL/LIU status change.	Setup	FAX	Operation	
	31	Used to set the TEL/LIU status.	Setup	FAX	Operation	
	32	Used to check received data.	Inhibited	FAX		
	33	Used to check signal detection.	Inhibited	FAX		
	34	Used to measure and display the communication time.	Setup	FAX	Operation	
	35	Modem program rewriting.(Only when FAX is installed.)	Operation test, check	FAX	Operation	
	36	Used to check interface between MFPC and MDMC. Check is made in the data line or the command line.	Operation test, check	FAX	Operation	

5. Detail of simulations

Main code 22

22-5

Purpose	Other
Function (Content)	Used to check the ROM version of each unit (section).
Section	
Item	Software
Operation/Procedure	The version of each ROM is displayed.

```
SIMULATION 22-5
ROM VERSION DATA DISPLAY.
S/N(MFP) :        000000000        S/N(ENGINE) :       0000000000
S/N(SCANNER) :    000000000
MFP :               1.00       (LANGUAGE : 1.00)
PCU :               1.00                BOOT :          1.00
SCANNER :           1.00                FAX :           1.00
FINISHER :          1.00                NIC :           1.00
DESK/LCC :          1.00                MAIL BIN :      1.00
PUNCH UNIT :      1.00
```

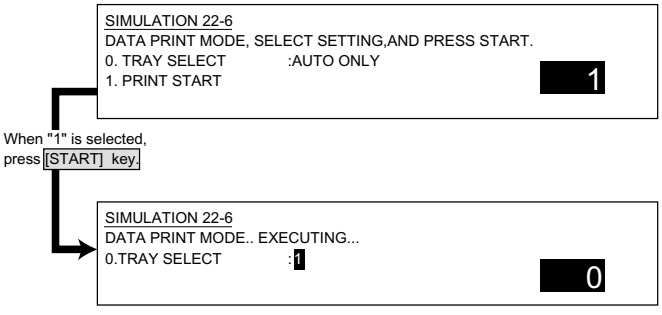
<List of display values>

S/N(MFP)	Controller serial number
S/N(ENGINE)	Engine section serial number
S/N(SCANNER)	Scanner section serial number
MFP	MFP controller
(LANGUAGE)	(Language version)
BOOT	MFP controller boot ROM
FAX	FAX controller
NIC	Network card
PCU	PCU controller
SCANNER	Scanner controller
FINISHER	Finisher controller
DESK/LCC	Desk/LCC controller
MAIL BIN	mail bin controller
PUNCH UNIT	Punch unit

(Product key controlled by PCU PWB serial number.)

22-6

Purpose	Adjustment, setup, operation data output, check (print)
Function (Content)	Used to print the list of adjustments and setup data (simulations, FAX soft switches, counters).
Section	
Item	Data
Operation/Procedure	the selected data is displayed on the menu box.



<List of display values>

0	TRAY SELECT auto only (no selection)
1	PRINT START

22-11

Purpose	Adjustment, setup, operation data output, check (display)
Function (Content)	Used to check the use frequency of FAX. (send/receive) (Only when FAX is installed.)
Section	FAX
Item	Data
Operation/Procedure	The counter data below are displayed.

```
SIMULATION 22-11
FAX COUNTER DATA DISPLAY.
FAX SEND :  ********      FAX RECEIVE :  ********
FAX OUTPUT :  ********
SEND IMAGES :  ********      SEND TIME :  ********:**:**
RECEIVE TIME :  ********:**:**
```

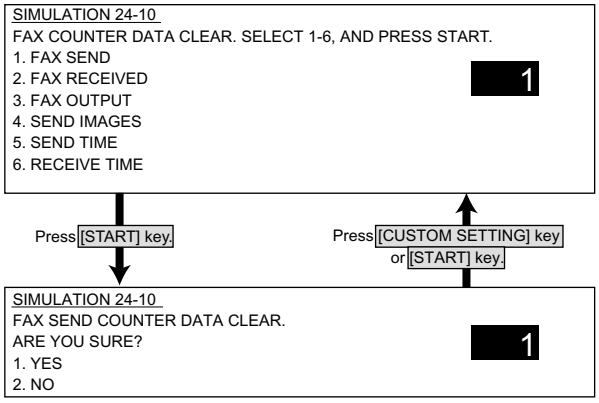
<List of display values>

FAX SEND	Number of times of FAX sending
FAX RECEIVE	Number of times of FAX receiving
FAX OUTPUT	FAX print quantity
SEND IMAGES	Quantity of sending
SEND TIME	Time for sending
RECEIVE TIME	Time for receiving

Main code 24

24-10

Purpose	Data clear
Function (Content)	Used to clear the FAX counter.
Section	FAX
Item	Counter
Operation/Procedure	Select with 10 digit key pad and press START key. The procedure below is executed and the display returns to the original state. 1: Counter is cleared 2: Not cleared



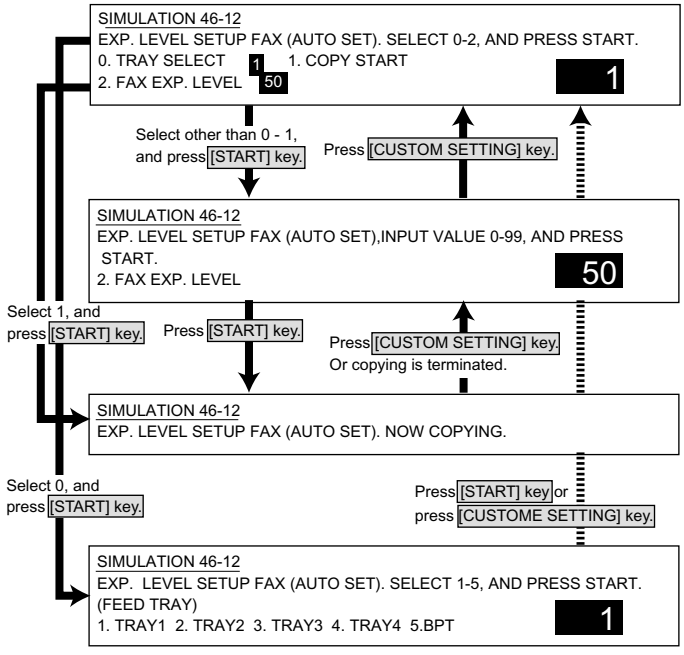
<List of set values>

1	FAX SEND: Number of times of FAX sending
2	FAX RECEIVE: Number of times of FAX reception
3	FAX OUTPUT: FAX print quantity
4	SEND IMAGES: Sending quantity
5	SEND TIME: Time for sending
6	RECEIVE TIME: Time for reception

Main code 46

46-12

Purpose	Adjustment
Function (Content)	Used to adjust the print density in the FAX mode (all modes). An adjustment with this simulation affects all the reading density adjustment values. (Only when FAX is installed)
Section	
Item	Picture quality
Operation/Procedure	The exposure mode to be set is selected. (FAX auto adjustment) 1) The current set value is highlighted on the right side of each item. In this screen, be sure to select "1: COPY START." (Set value: 1) 2) Set the exposure level with 10 digit key pad. Press P to store the set value. (Default: 50, set range: 0 - 99) 3) Press START, and copying is started and the set value is stored. (Display value 1) 4) Select a paper feed tray. (Set value 2)


SIMULATION 46-12
EXP. LEVEL SETUP FAX (AUTO SET). SELECT 0-2, AND PRESS START.
0. TRAY SELECT 1 1. COPY START
2. FAX EXP. LEVEL 50
1
Select other than 0 - 1, and press [START] key.
Press [CUSTOM SETTING] key.
SIMULATION 46-12
EXP. LEVEL SETUP FAX (AUTO SET),INPUT VALUE 0-99, AND PRESS START.
2. FAX EXP. LEVEL
50
Select 1, and press [START] key.
Press [START] key.
Press [CUSTOM SETTING] key.
Or copying is terminated.
SIMULATION 46-12
EXP. LEVEL SETUP FAX (AUTO SET). NOW COPYING.
Select 0, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-12
EXP. LEVEL SETUP FAX (AUTO SET). SELECT 1-5, AND PRESS START.
(FEED TRAY)
1. TRAY1 2. TRAY2 3. TRAY3 4. TRAY4 5.BPT
1

<List of set values 1>

0	Paper feed tray selection
1	Copy start (Default)
2	FAX mode exposure setup

<List of display values 1>

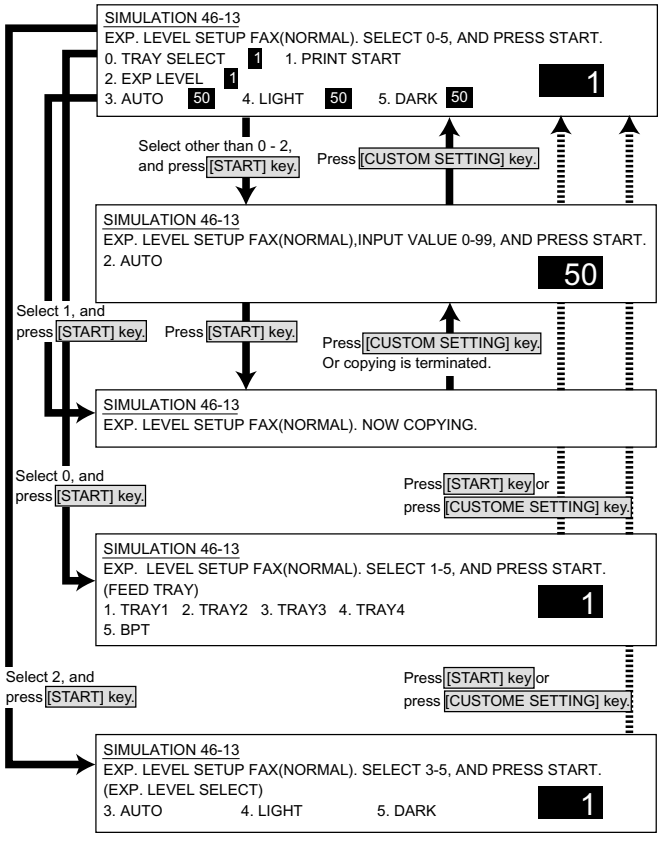
Normal display		NOW COPYING
ERROR display	Door open	DOOR OPEN.
	Jam	JAM
	paper empty	PAPER EMPTY.

<List of set values 2>

1	TRAY1
2	TRAY2
3	TRAY3
4	TRAY4
5	Manual feed

46-13

Purpose	Adjustment
Function (Content)	Used to adjust the reading density in the FAX mode (Standard mode). (Only when FAX is installed.)"
Section	
Item	Picture quality
Operation/Procedure	The exposure mode to be set is selected. (FAX Standard mode individual adjustment) 1) The current set value is highlighted on the right side of each item. In this screen, be sure to select "1: COPY START." (Set value: 1) 2) Set the exposure level with 10 digit key pad. Press P to store the set value. (Default: 50, set range: 0 - 99) 3) Press START, and copying is started and the set value is stored. (Display value 1) 4) Select a paper feed tray. (Set value 2) 5) Select an exposure level. (Set value 3)


SIMULATION 46-13
EXP. LEVEL SETUP FAX(NORMAL). SELECT 0-5, AND PRESS START.
0. TRAY SELECT 1 1. PRINT START
2. EXP LEVEL 1
3. AUTO 50 4. LIGHT 50 5. DARK 50
1
Select other than 0 - 2, and press [START] key.
Press [CUSTOM SETTING] key.
SIMULATION 46-13
EXP. LEVEL SETUP FAX(NORMAL),INPUT VALUE 0-99, AND PRESS START.
2. AUTO
50
Select 1, and press [START] key.
Press [START] key.
Press [CUSTOM SETTING] key.
Or copying is terminated.
SIMULATION 46-13
EXP. LEVEL SETUP FAX(NORMAL). NOW COPYING.
Select 0, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-13
EXP. LEVEL SETUP FAX(NORMAL). SELECT 1-5, AND PRESS START.
(FEED TRAY)
1. TRAY1 2. TRAY2 3. TRAY3 4. TRAY4
5. BPT
1
Select 2, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-13
EXP. LEVEL SETUP FAX(NORMAL). SELECT 3-5, AND PRESS START.
(EXP. LEVEL SELECT)
3. AUTO 4. LIGHT 5. DARK
1

<List of set values 1>

0	Paper feed tray selection
1	Print start (Default)
2	Exposure level selection
3	Auto
4	Bright
5	Dark

<List of display values 1>

Normal display		NOW COPYING
ERROR display	Door open	DOOR OPEN.
	Jam	JAM
	paper empty	PAPER EMPTY.

<List of set values 2>

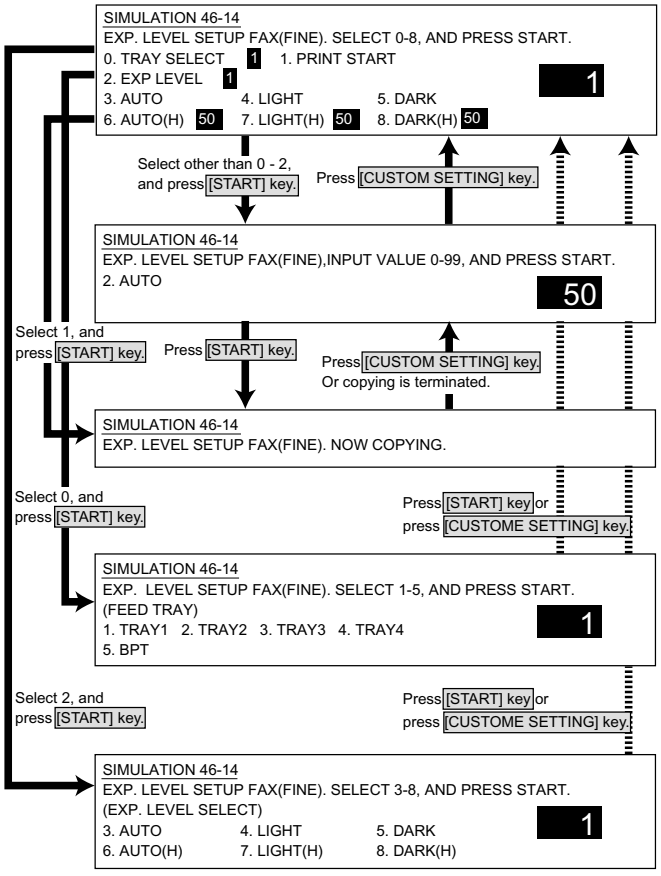
1	TRAY1
2	TRAY2
3	TRAY3
4	TRAY4
5	Manual feed

<List of set values 3>

3	Auto
4	Bright
5	Dark

46-14

Purpose	Adjustment
Function (Content)	Used to adjust the reading density in the FAX mode (Fine mode). (Only when FAX is installed.)
Section	
Item	Picture quality
Operation/Procedure	The exposure mode to be set is selected. (FAX Fine mode individual adjustment) 1) The current set value is highlighted on the right side of each item. In this screen, be sure to select "1: COPY START." (Set value: 1) 2) Set the exposure level with 10 digit key pad. Press P to store the set value. (Default: 50, set range: 0 - 99) 3) Press START, and copying is started and the set value is stored. (Display value 1) 4) Select a paper feed tray. (Set value 2) 5) Select an exposure level. (Set value 3)


SIMULATION 46-14
EXP. LEVEL SETUP FAX(FINE). SELECT 0-8, AND PRESS START.
0. TRAY SELECT 1 1. PRINT START
2. EXP LEVEL 1
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 50 7. LIGHT(H) 50 8. DARK(H) 50
1
Select other than 0 - 2, and press [START] key.
Press [CUSTOM SETTING] key.
SIMULATION 46-14
EXP. LEVEL SETUP FAX(FINE),INPUT VALUE 0-99, AND PRESS START.
2. AUTO
50
Select 1, and press [START] key.
Press [START] key.
Press [CUSTOM SETTING] key.
Or copying is terminated.
SIMULATION 46-14
EXP. LEVEL SETUP FAX(FINE). NOW COPYING.
Select 0, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-14
EXP. LEVEL SETUP FAX(FINE). SELECT 1-5, AND PRESS START.
(FEED TRAY)
1. TRAY1 2. TRAY2 3. TRAY3 4. TRAY4
5. BPT
1
Select 2, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-14
EXP. LEVEL SETUP FAX(FINE). SELECT 3-8, AND PRESS START.
(EXP. LEVEL SELECT)
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 7. LIGHT(H) 8. DARK(H)
1

<List of set values 1>

0	Paper feed tray selection
1	Print start (Default)
2	Exposure level selection
3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

<List of display values 1>

Normal display		NOW COPYING
ERROR display	Door open	DOOR OPEN.
	Jam	JAM
	Paper empty	PAPER EMPTY.

<List of set values 2>

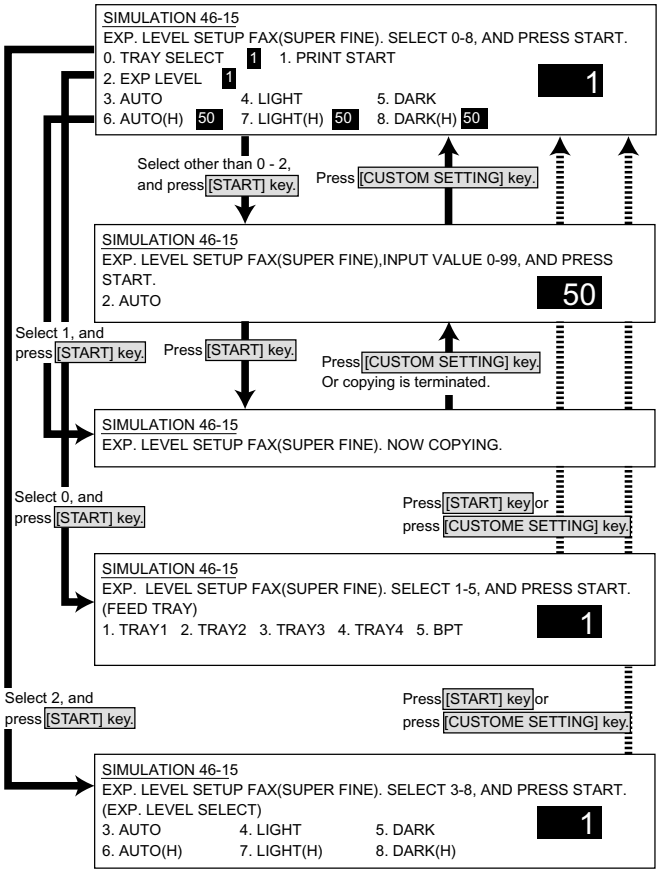
1	TRAY1
2	TRAY2
3	TRAY3
4	TRAY4
5	Manual feed

<List of set values 3>

3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

46-15

Purpose	Adjustment
Function (Content)	Used to adjust the reading density in the FAX mode (Super Fine mode). (Only when FAX is installed.)
Section	
Item	Picture quality
Operation/Procedure	The exposure mode to be set is selected. (FAX Super Fine mode individual adjustment) 1) The current set value is highlighted on the right side of each item. In this screen, be sure to select "1: COPY START." (Set value: 1) 2) Set the exposure level with 10 digit key pad. Press P to store the set value. (Default: 50, set range: 0 - 99) 3) Press START, and copying is started and the set value is stored. (Display value 1) 4) Select a paper feed tray. (Set value 2) 5) Select an exposure level. (Set value 3)


SIMULATION 46-15
EXP. LEVEL SETUP FAX(SUPER FINE). SELECT 0-8, AND PRESS START.
0. TRAY SELECT 1 1. PRINT START
2. EXP LEVEL 1
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 50 7. LIGHT(H) 50 8. DARK(H) 50
1
Select other than 0 - 2, and press [START] key.
Press [CUSTOM SETTING] key.
SIMULATION 46-15
EXP. LEVEL SETUP FAX(SUPER FINE),INPUT VALUE 0-99, AND PRESS START.
2. AUTO
50
Select 1, and press [START] key.
Press [START] key.
Press [CUSTOM SETTING] key.
Or copying is terminated.
SIMULATION 46-15
EXP. LEVEL SETUP FAX(SUPER FINE). NOW COPYING.
Select 0, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-15
EXP. LEVEL SETUP FAX(SUPER FINE). SELECT 1-5, AND PRESS START.
(FEED TRAY)
1. TRAY1 2. TRAY2 3. TRAY3 4. TRAY4 5. BPT
1
Select 2, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-15
EXP. LEVEL SETUP FAX(SUPER FINE). SELECT 3-8, AND PRESS START.
(EXP. LEVEL SELECT)
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 7. LIGHT(H) 8. DARK(H)
1

<List of set values 1>

0	Paper feed tray selection
1	Print start (Default)
2	Exposure level selection
3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

<List of display values 1>

Normal display		NOW COPYING
ERROR display	Door open	DOOR OPEN.
	Jam	JAM
	Paper empty	PAPER EMPTY.

<List of set values 2>

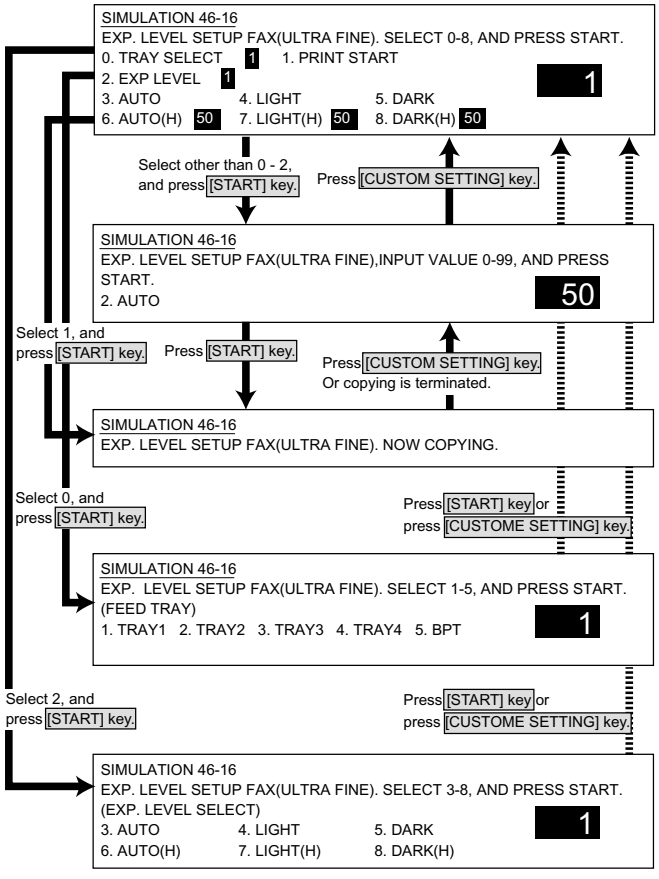
1	TRAY1
2	TRAY2
3	TRAY3
4	TRAY4
5	Manual feed

<List of set values 3>

3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

46-16

Purpose	Adjustment
Function (Content)	Used to adjust the reading density in the FAX mode (Ultra Fine mode). (Only when FAX is installed.)
Section	
Item	Picture quality
Operation/Procedure	The exposure mode to be set is selected. (FAX Ultra Fine mode individual adjustment) 1) The current set value is highlighted on the right side of each item. In this screen, be sure to select "1: COPY START." (Set value: 1) 2) Set the exposure level with 10 digit key pad. Press P to store the set value. (Default: 50, set range: 0 - 99) 3) Press START, and copying is started and the set value is stored. (Display value 1) 4) Select a paper feed tray. (Set value 2) 5) Select an exposure level. (Set value 3)


SIMULATION 46-16
EXP. LEVEL SETUP FAX(ULTRA FINE). SELECT 0-8, AND PRESS START.
0. TRAY SELECT 1 1. PRINT START
2. EXP LEVEL 1
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 50 7. LIGHT(H) 50 8. DARK(H) 50
1
Select other than 0 - 2, and press [START] key.
Press [CUSTOM SETTING] key.
SIMULATION 46-16
EXP. LEVEL SETUP FAX(ULTRA FINE),INPUT VALUE 0-99, AND PRESS START.
2. AUTO
50
Select 1, and press [START] key.
Press [START] key.
Press [CUSTOM SETTING] key.
Or copying is terminated.
SIMULATION 46-16
EXP. LEVEL SETUP FAX(ULTRA FINE). NOW COPYING.
Select 0, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-16
EXP. LEVEL SETUP FAX(ULTRA FINE). SELECT 1-5, AND PRESS START.
(FEED TRAY)
1. TRAY1 2. TRAY2 3. TRAY3 4. TRAY4 5. BPT
1
Select 2, and press [START] key.
Press [START] key or press [CUSTOME SETTING] key.
SIMULATION 46-16
EXP. LEVEL SETUP FAX(ULTRA FINE). SELECT 3-8, AND PRESS START.
(EXP. LEVEL SELECT)
3. AUTO 4. LIGHT 5. DARK
6. AUTO(H) 7. LIGHT(H) 8. DARK(H)
1

<List of set values 1>

0	Paper feed tray selection
1	Print start (Default)
2	Exposure level selection
3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

<List of display values 1>

Normal display		NOW COPYING
ERROR display	Door open	DOOR OPEN.
	Jam	JAM
	Paper empty	PAPER EMPTY.

<List of set values 2>

1	TRAY1
2	TRAY2
3	TRAY3
4	TRAY4
5	Manual feed

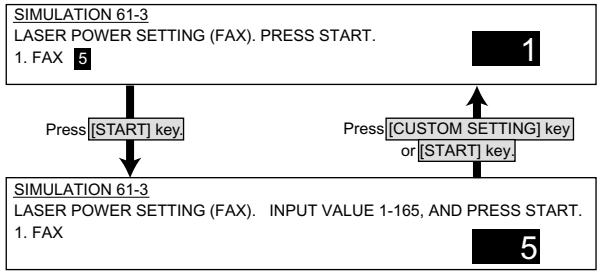
<List of set values 3>

3	Auto
4	Bright
5	Dark
6	Auto (Half tone)
7	Bright (half tone)
8	Dark (Half tone)

Main code 61

61-3

Purpose	Adjustment
Function (Content)	Used to adjust the scanner (exposure) laser power (absolute value) in the FAX reception mode. (Only when FAX is installed.)
Section	PCU
Item	Operation
Operation/Procedure	Set the laser power in FAX reception. Enter the set value and press Start to store it.



<List of set values>

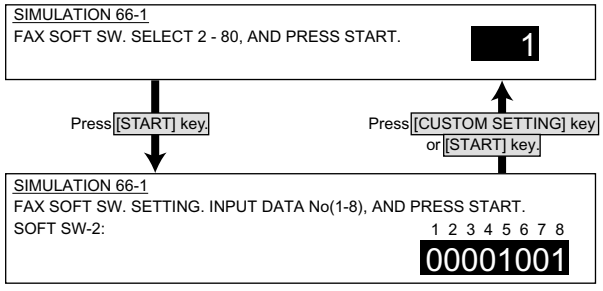
			Initial value	Set range
1	FAX reception	45PPM	104	104 - 150 (45PPM) 80 - 150 (35PPM)
		35PPM	80	

Main code 66

66-1

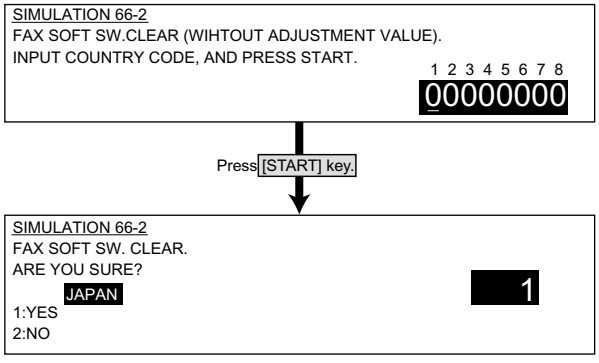
Purpose	Setup
Function (Content)	Used to set the FAX soft switch function. (Used to utilize the FAX soft switch function.)
Section	FAX
Item	
Operation/Procedure	Set the Fax soft switch. (For details of the soft SW, refer to the AR-FX5 Service Manual.) Entry of 1 - 8 only is effective. 1) Specify the bit to be changed (highlighted) with a number. 2) Press START to rewrite the setting.

* SIM 1 cannot be changed with this simulation.


SIMULATION 66-1
FAX SOFT SW. SELECT 2 - 80, AND PRESS START.
1
Press [START] key.
Press [CUSTOM SETTING] key or [START] key.
SIMULATION 66-1
FAX SOFT SW. SETTING. INPUT DATA No(1-8), AND PRESS START.
SOFT SW-2:
1 2 3 4 5 6 7 8
00001001

66-2

Purpose	Data clear
Function (Content)	Used to set the FAX soft switch setup to the default. (Except for the adjustment values)
Section	FAX
Item	Data
Operation/Procedure	The current set value of SW1 is displayed. Entry of 1 - 8 only is effective. 1) Specify the bit to be changed (highlighted) with a number. 2) Select the country code, and press START to rewrite the setting. 3) Select a number (1 - 2) with 10 digit key pad and press START to execute. 1: FAX soft SW clear 2: Not clear 4) The soft switch (excluding the FAX adjustment value) corresponding to the selected country code is cleared. 5) The selected country is highlighted.



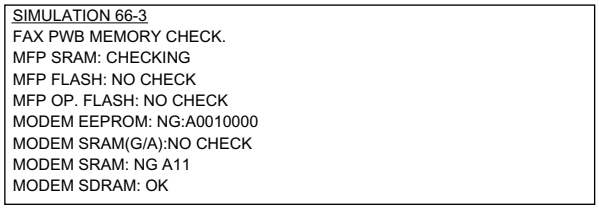
<Country codes>

Japan	00000000
U.S.A.	10110101

* Conforms to Advisory Document T.35.

66-3

Purpose	Operation test, check
Function (Content)	Used to check the operations of FAX PWB memory (read/write). (This adjustment is required when replacing the PWB with a new one.)
Section	FAX
Item	Data
Operation/Procedure	Check the FAX PWB memory. When this simulation is executed, the error occurring address or the data line is displayed.



<List of display values>

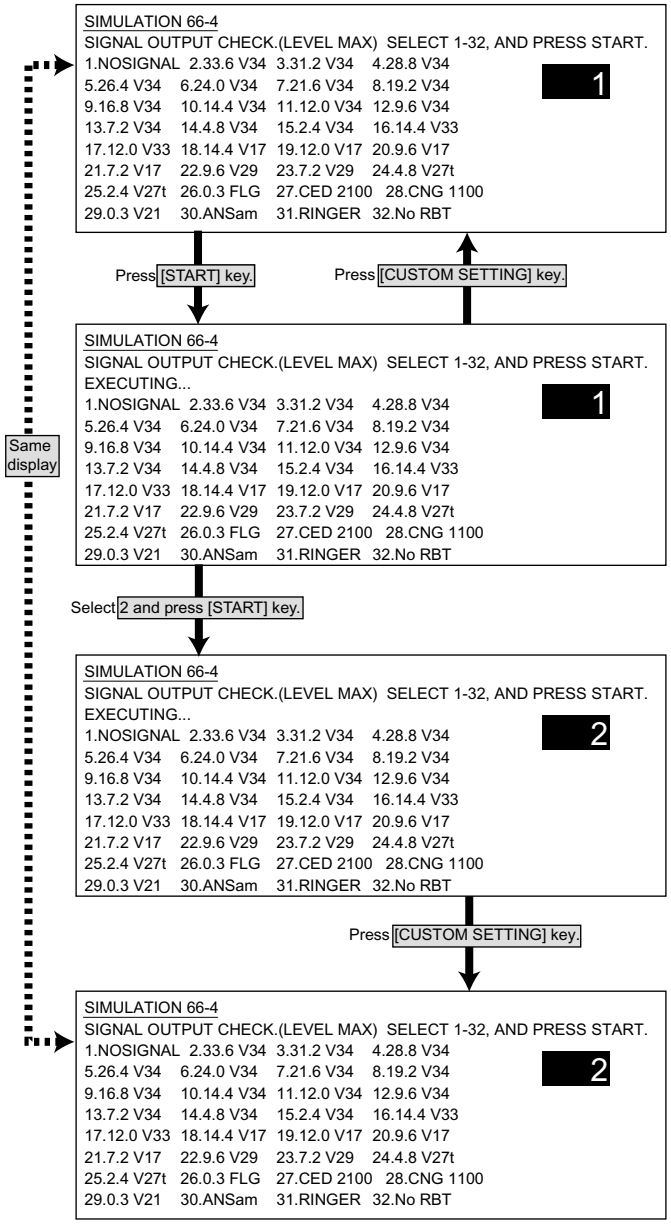
NO CHECK	Not checked
CHECKING	Checking
OK	Check complete OK
NG	Check error

<Items>

MFP SRAM (MFP control PWB)	SRAM
MFP FLASH (FAX I/F PWB)	FLASH Memory
MFP OP.FLASH (FAX I/F PWB)	FLASH Memory (AR-MM9)
MODEM EEPROM (FAX PWB)	
MODEM SRAM(G/A) (FAX PWB)	
MODEM SRAM (FAX PWB)	
MODEM SDRAM (FAX PWB)	

66-4

Purpose	Operation test, check
Function (Content)	Used to check the operations of data signal output in the FAX data output mode. (Used to check the MODEM operation.) Send level 0db (Max.) (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	Signal output check (level Max.) When CUSTOM SETTING is pressed during execution of this simulation, execution is stopped. Enter a number and press START to change the kind of signal.

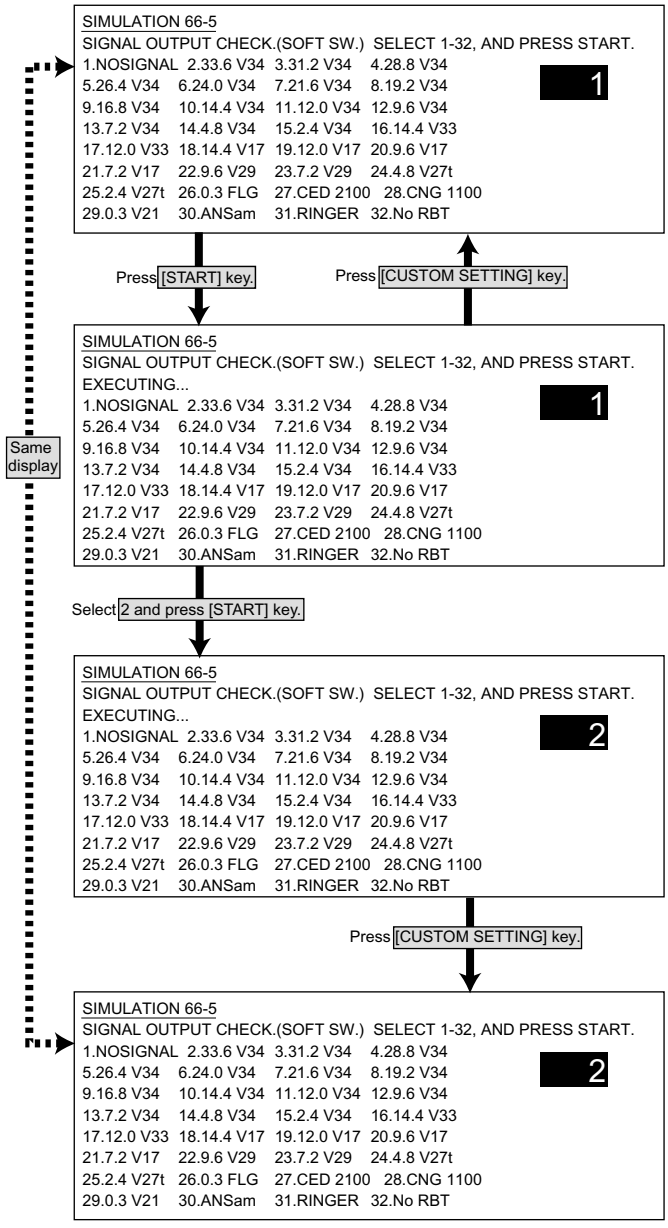


<List of set values>

1	No signal	17	12.0 V33
2	33.6 V34	18	14.4 V17
3	31.2 V34	19	12.0 V17
4	28.8 V34	20	9.6 V17
5	26.4 V34	21	7.2 V17
6	24.0 V34	22	9.6 V29
7	21.6 V34	23	7.2 V29
8	19.2 V34	24	4.8 V27t
9	16.8 V34	25	2.4 V27t
10	14.4 V34	26	0.3 FLG
11	12.0 V34	27	CED2100
12	9.6 V34	28	CNG1100
13	7.2 V34	29	0.3 V21
14	4.8 V34	30	ANSam
15	2.4 V34	31	RINGER
16	14.4 V33	32	No RBT

66-5

Purpose	Operation test, check
Function (Content)	Used to check the operations of data signal output in the FAX data output mode. (Used to check the MODEM operation.) Signals are sent in the send level set with the soft switch. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	Signal output check (Send level is set with the soft SW.) When CUSTOM SETTING is pressed during execution of this simulation, execution is stopped. Enter a number and press START to change the kind of signal.

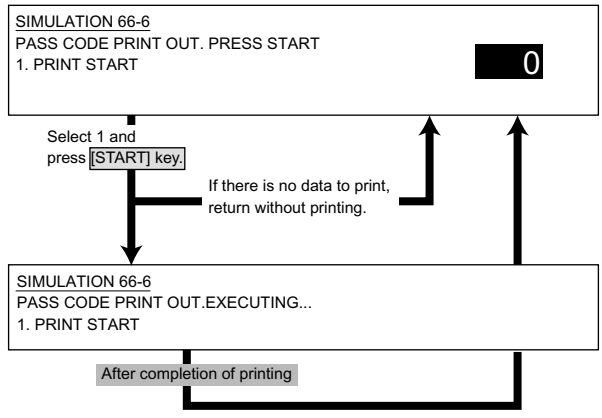


<List of set values>

1	No signal	17	12.0 V33
2	33.6 V34	18	14.4 V17
3	31.2 V34	19	12.0 V17
4	28.8 V34	20	9.6 V17
5	26.4 V34	21	7.2 V17
6	24.0 V34	22	9.6 V29
7	21.6 V34	23	7.2 V29
8	19.2 V34	24	4.8 V27t
9	16.8 V34	25	2.4 V27t
10	14.4 V34	26	0.3 FLG
11	12.0 V34	27	CED2100
12	9.6 V34	28	CNG1100
13	7.2 V34	29	0.3 V21
14	4.8 V34	30	ANSam
15	2.4 V34	31	RINGER
16	14.4 V33	32	No RBT

66-6

Purpose	User data output, check (display, print)
Function (Content)	Used to print the confidential password. (Used when the confidential password is forgotten.) (Only when FAX is installed.)
Section	FAX
Item	Data
Operation/Procedure	The confidential pass code is printed. The currently selected data is displayed on the side of menu.

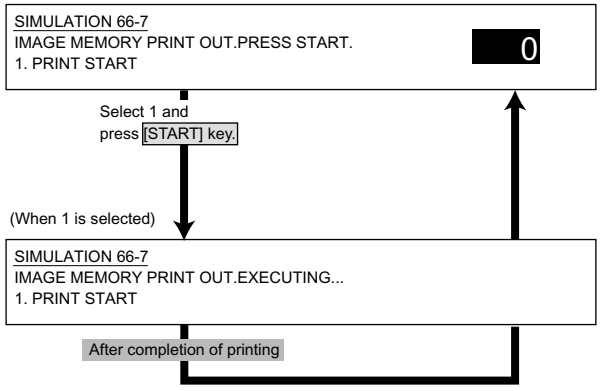

SIMULATION 66-6
PASS CODE PRINT OUT. PRESS START
1. PRINT START
0
Select 1 and press [START] key.
If there is no data to print, return without printing.
SIMULATION 66-6
PASS CODE PRINT OUT.EXECUTING...
1. PRINT START
After completion of printing

<Set value>

1	Print start

66-7

Purpose	User data output, check (display, print)
Function (Content)	Used to print the image memory data (memory send, receive). (Only when FAX is installed.
Section	FAX
Item	Data
Operation/Procedure	The content of image memory is printed. The paper size is automatically selected with the paper size stored in the image memory.

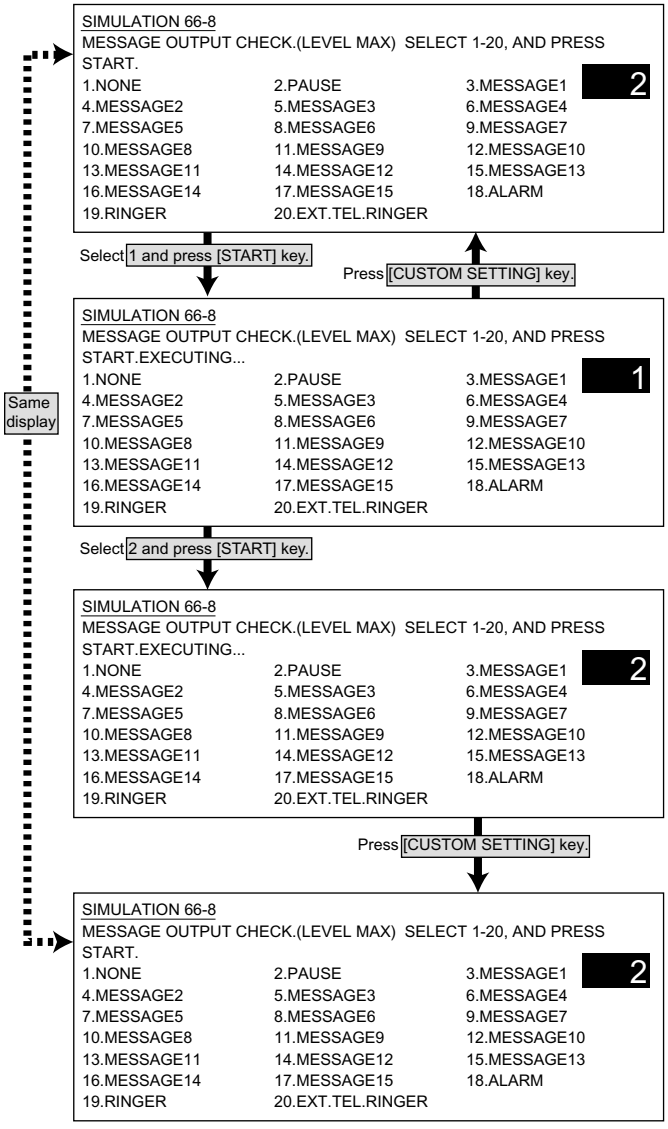


<Set value>

1	Print start

66-8

Purpose	Operation test, check
Function (Content)	Used to check the output operation of the FAX sound signals. (Sound output IC operation check) Send level Max. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	A voice message is outputted. (Level Max.) Enter a number during execution to change the king of signal. Press START to start sending a voice message. Press CUSTOMSETTING to terminate.

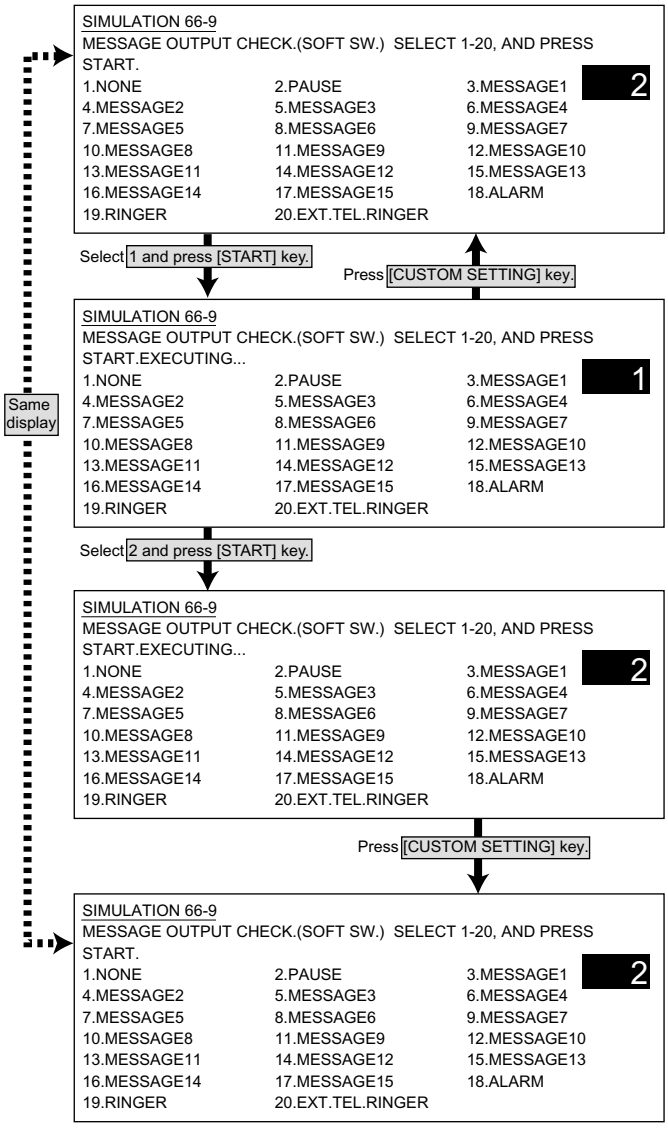


<List of set values>

1	NONE	NONE
2	PAUSE	PAUSE
3	MESSAGE1	MESSAGE1
4	MESSAGE2	MESSAGE2
5	MESSAGE3	MESSAGE3
6	MESSAGE4	MESSAGE4
7	MESSAGE5	MESSAGE5
8	MESSAGE6	MESSAGE6
9	MESSAGE7	MESSAGE7
10	MESSAGE8	MESSAGE8
11	MESSAGE9	MESSAGE9
12	MESSAGE10	MESSAGE10
13	MESSAGE11	MESSAGE11
14	MESSAGE12	MESSAGE12
15	MESSAGE13	MESSAGE13
16	MESSAGE14	MESSAGE14
17	MESSAGE15	MESSAGE15
18	ALARM	ALARM
19	RINGER	RINGER
20	EXT.TEL.RINGER	EXT.TEL.RINGER

66-9

Purpose	Operation test, check
Function (Content)	Used to check the output operation of the FAX sound signals. (Sound output IC operation check) (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	A voice message is outputted. (Send level is set with SW.) Enter a number during execution to change the kind of signal. Press START to start sending a voice message. Press CUSTOMSETTING to terminate.



<List of set values>

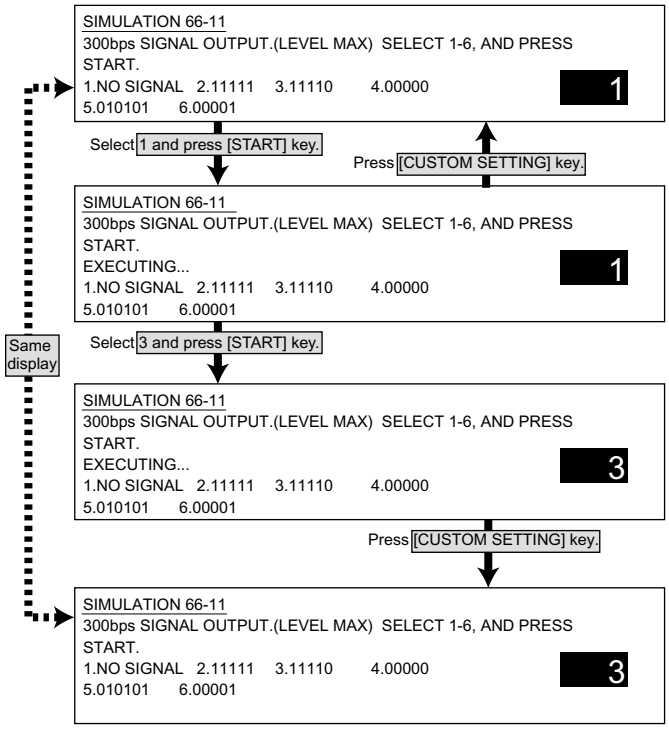
1	NONE	NONE
2	PAUSE	PAUSE
3	MESSAGE1	MESSAGE1
4	MESSAGE2	MESSAGE2
5	MESSAGE3	MESSAGE3
6	MESSAGE4	MESSAGE4
7	MESSAGE5	MESSAGE5
8	MESSAGE6	MESSAGE6
9	MESSAGE7	MESSAGE7
10	MESSAGE8	MESSAGE8
11	MESSAGE9	MESSAGE9
12	MESSAGE10	MESSAGE10
13	MESSAGE11	MESSAGE11
14	MESSAGE12	MESSAGE12
15	MESSAGE13	MESSAGE13
16	MESSAGE14	MESSAGE14
17	MESSAGE15	MESSAGE15
18	ALARM	ALARM
19	RINGER	RINGER
20	EXT.TEL.RINGER	EXT.TEL.RINGER

66-10

Purpose	User data output, check (display, print)
Function (Content)	Used to clear all data of image memory (memory send, receive). Confidential data are also cleared. (Only when FAX is installed.)
Section	FAX
Item	Data
Operation/Procedure	The FAX image memory is cleared. 1) Select an item with 10 digit key pad and press START. The following is executed and the display returns to the initial state. 1: Image memory clear 2: Not clear 2) After completion of memory clear, reset.

66-11

Purpose	Operation test, check
Function (Content)	Used to check the output operation of FAX G3 mode 300BPS. (Used to check the MODEM operation.) Send level Max. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	A signal of 300bps is outputted. (Level Max.) Enter a number during execution to change the kind of signal. Press START to start sending a voice message. Press CUSTOMSETTING to terminate.

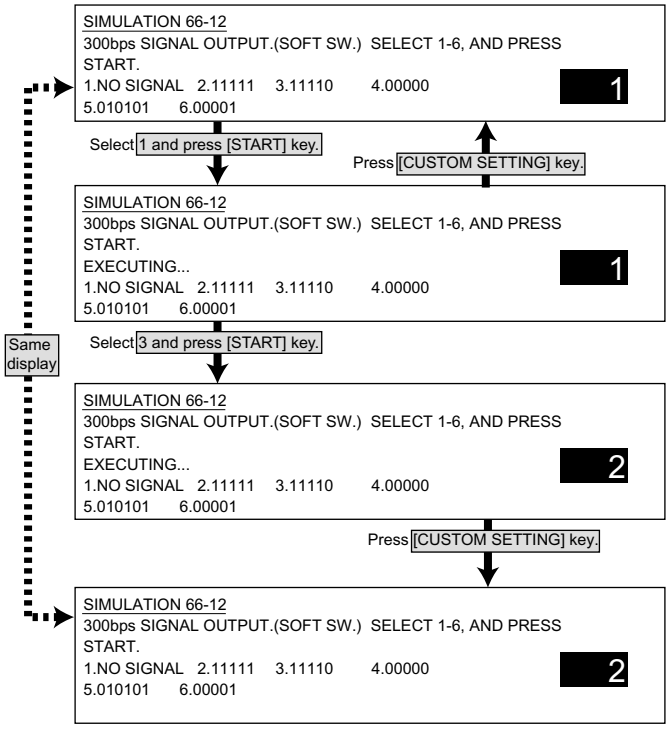


<List of set values>

1	NO SIGNAL	No signal
2	11111	
3	11110	
4	00000	
5	010101	
6	00001	

66-12

Purpose	Setup
Function (Content)	Used to check the output operation of FAX G3 mode 300BPS. (Used to check the MODEM operation.) Signals are sent in the send level set with the soft switch. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	A signal of 300bps is outputted. (Send level is set with SW.) Enter a number during execution to change the kind of signal. Press START to start sending a voice message. Press CUSTOMSETTING to terminate.

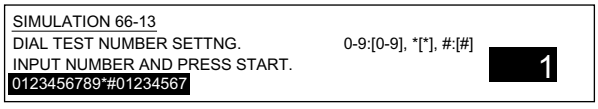


<List of set values>

1	NO SIGNAL	No signal
2	11111	
3	11110	
4	00000	
5	010101	
6	00001	

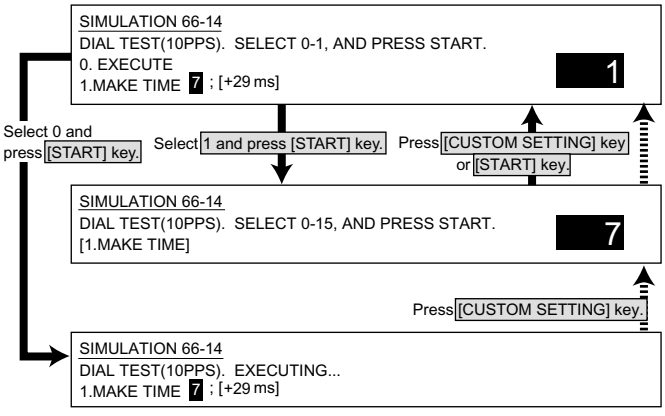
66-13

Purpose	Setup
Function (Content)	Used to enter (set) the number for the FAX dial signal output test. (The dial number signal set with this simulation is outputted in the dial signal output test with SIM 66-14~16) (Only when FAX is installed.)
Section	FAX
Item	Data
Operation/Procedure	The dial test number is set. Enter a number with 10 digit key pad, * key, and # key. The upper limit is 20 digits. Press CLEAR to return to the initial state. Press START to register.



66-14

Purpose	Setup
Function (Content)	Used to set the make time in the FAX pulse dial mode (10PPS) and to test the dial signal output. (The dial number signal set with SIM 66-13 is outputted.) Used to check dialing troubles and the operation. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The dial test is performed. (10PPS output) The make time is set. When CUSTOM SETTING is pressed, the execution is terminated.


SIMULATION 66-14
DIAL TEST(10PPS). SELECT 0-1, AND PRESS START.
0. EXECUTE
1.MAKE TIME 7 ; [+29 ms]
1
Select 0 and press [START] key.
Select 1 and press [START] key.
Press [CUSTOM SETTING] key or [START] key.
SIMULATION 66-14
DIAL TEST(10PPS). SELECT 0-15, AND PRESS START.
[1.MAKE TIME]
7
Press [CUSTOM SETTING] key.
SIMULATION 66-14
DIAL TEST(10PPS). EXECUTING...
1.MAKE TIME 7 ; [+29 ms]

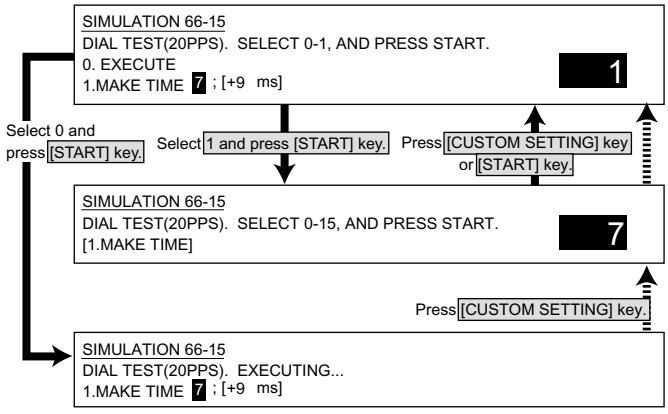
<List of set values>

0	Execution
1	Dial pulse make time setup (0 - 15)

* Dial is send with the setup value of +29ms.

66-15

Purpose	Setup
Function (Content)	Used to set the make time in the FAX pulse dial mode (20PPS) and to test the dial signal output. (The dial number signal set with SIM 66-13 is outputted.) Used to check dialing troubles and the operation. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The dial test is performed. (20PPS output) The make time is set. When CUSTOM SETTING is pressed, the execution is terminated.


SIMULATION 66-15
DIAL TEST(20PPS). SELECT 0-1, AND PRESS START.
0. EXECUTE
1.MAKE TIME 7 ; [+9 ms]
1
Select 0 and press [START] key.
Select 1 and press [START] key.
Press [CUSTOM SETTING] key or [START] key.
SIMULATION 66-15
DIAL TEST(20PPS). SELECT 0-15, AND PRESS START.
[1.MAKE TIME]
7
Press [CUSTOM SETTING] key.
SIMULATION 66-15
DIAL TEST(20PPS). EXECUTING...
1.MAKE TIME 7 ; [+9 ms]

<List of set values>

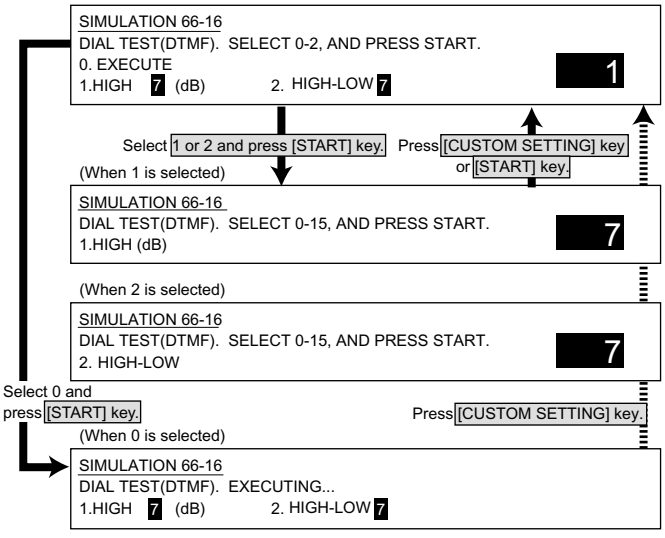
0	Execution
1	Dial pulse make time setup (0 - 15)

* Dial is send with the setup value of +9ms.

66-16

Purpose	Setup
Function (Content)	Used to test the dial signal (DTMF) output in the FAX tone dial mode. (The dial number signal set with SIM 66-13 is outputted.) The send level can be set to an optional level. Used to check dialing troubles and the operation.
Section	FAX
Item	Operation
Operation/Procedure	The dial test is performed. (DTMF signal output) 1) The level (dB) setup is made. (Set range: 0 - 15dB) 2) The difference between high group and low group is set. (Set range: 0 - 15) 3) When CUSTOM SETTING is pressed, the execution is terminated.

* For the set value, refer to the soft SW specifications.

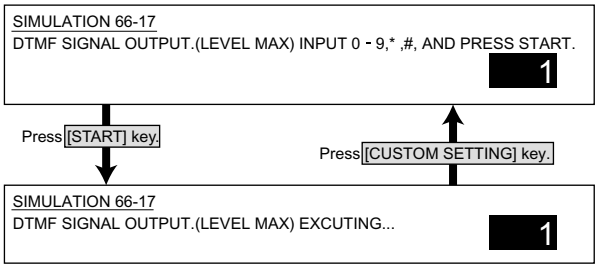


<List of set values>

0		Execution
1	HIGH	High group level
2	HIGH-LOW	High group - low group

66-17

Purpose	Setup
Function (Content)	Used to test the dial signal (DTMF) output in the Fax tone dial mode. Send level Max. Used to check the dial IC operation. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The DTMF signal output is checked. (Output level 0) When CUSTOM SETTING is pressed, the execution is terminated.

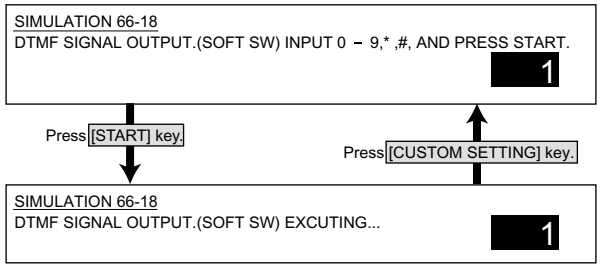


<DTMF signal>

1 - 9, 0, *, #

66-18

Purpose	Setup
Function (Content)	Used to test the dial signal (DTMF) output in the Fax tone dial mode. The send level set with the soft switch is outputted. Used to check the dial IC operation. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The DTMF signal output is checked. (Output level is set with soft SW.) When CUSTOM SETTING is pressed, the execution is terminated.

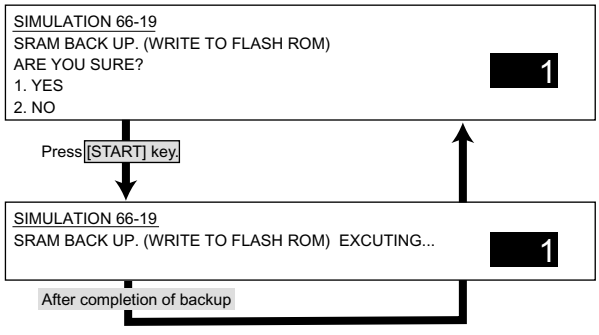


<DTMF signal>

1 - 9, 0, *, #

66-19

Purpose	Setup
Function (Content)	Used to backup the FAX SRAM data(Set values of rapid key dialing) into the flash Memory(AR-MM9). (When FAX is installed and FAX expansion memory is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The content of SRAM is backed up into Flash Memory(AR-MM9).

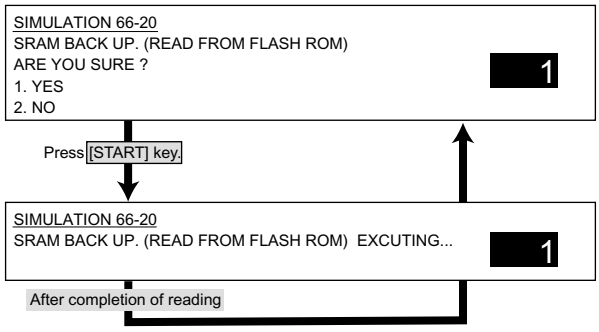


<Set values>

1	Backup executed
2	No backup

66-20

Purpose	Setup
Function (Content)	Used to restore the backup data (SIM 66-19) to SRAM. (When FAX is installed and FAX expansion memory is installed.)
Section	FAX
Item	Operation
Operation/Procedure	Read/write from Flash Memory(AR-MM9) to SRAM is performed.

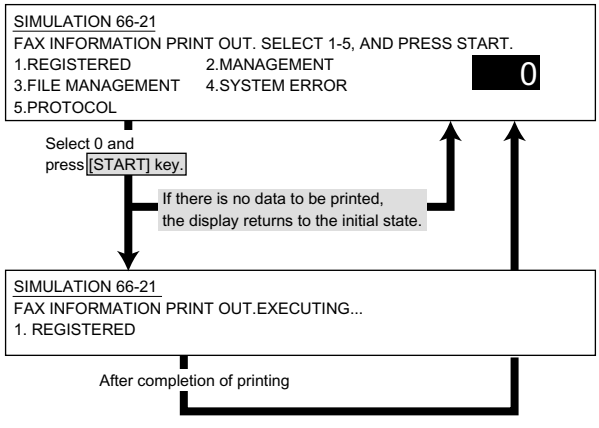


<Set value>

1	Read/Write executed
2	Read/write not executed

66-21

Purpose	Adjustment, setup, operation data output, check (display, print)
Function (Content)	Used to print the FAX information (registrations, communication management, file management, system errors). (Only when FAX is installed.)
Section	FAX
Item	Data
Operation/Procedure	Information related to FAX is printed. 1) Select information to be printed. 2) The selected information is printed. 3) The paper size is automatically selected by the size stored in the image memory.

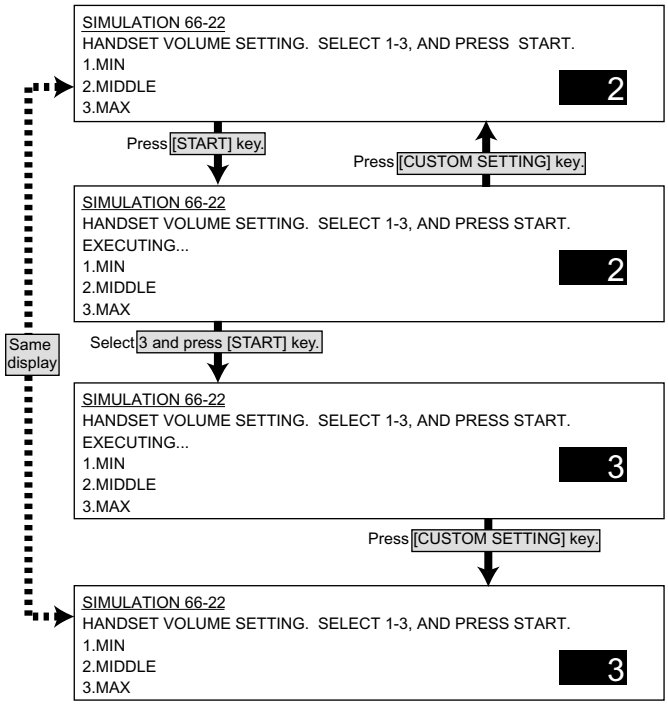

SIMULATION 66-21
FAX INFORMATION PRINT OUT. SELECT 1-5, AND PRESS START.
1.REGISTERED 2.MANAGEMENT
3.FILE MANAGEMENT 4.SYSTEM ERROR
5.PROTOCOL
0
Select 0 and press [START] key.
If there is no data to be printed, the display returns to the initial state.
SIMULATION 66-21
FAX INFORMATION PRINT OUT.EXECUTING...
1. REGISTERED
After completion of printing

<List of set values>

1	REGISTERED	Various registered information
2	MANAGEMENT	Communication management information
3	FILE MANAGEMENT	Fine management information
4	SYSTEM ERROR	System error information
5	PROTOCOL	Protocol information

66-22

Purpose	Setup
Function (Content)	Used to adjust the handset sound volume. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The hand set sound volume is set. 1) Press START to set. 2) During execution, selection of 1, 2, and 3 is possible.



<List of set values>

1	Min,
2	Middle
3	Max.

66-23

Purpose	Operation test, check
Function (Content)	Used to download the FAX program. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The contents of ROM in the option memory (AR-MM9) installing section are copied as FAX program.

(This mode is for development, and inhibited in the market.)

SIMULATION 66-23
FAX PROGRAM DOWNLOAD.
EJECT PROTECT PIN, AND PRESS START.

66-24

Purpose	Operation test, check
Function (Content)	Used clear the FAST memory data. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	1) Select with 10 digit key pad, press START to execute the following. 1: Fast memory data clear 2: Not clear 2) After completion of memory clear, reset is made.

SIMULATION 66-24
FAST MEMORY DATA CLEAR.
ARE YOU SURE ?
1. YES
2. NO

66-25

Purpose	Setup
Function (Content)	Used to register the FAX number for MODEM dial-in. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	

(This mode is for development, and inhibited in the market.)

SIMULATION 66-25
M-D-IN FAX NUMBER SETTING. 0-9: [0-9],*: [*],#: [#]
INPUT NUMBER AND PRESS START.
0123456789*#01234567

66-26

Purpose	Setup
Function (Content)	Used to register the external telephone number for MODEM dial-in. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	

(This mode is for development, and inhibited in the market.)

SIMULATION 66-26
M-D-IN EXTEL NUMBER SETTING. 0-9: [0-9],*: [*],#: [#]
INPUT NUMBER AND PRESS START.
0123456789*#01234567

66-27

Purpose	Setup
Function (Content)	Used to register the voice-warp transfer number. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	

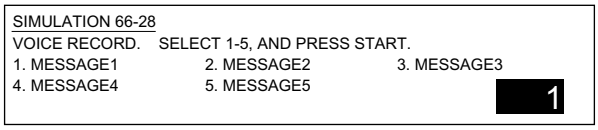
(This mode is for development, and inhibited in the market.)

SIMULATION 66-27
V-WP TRANSMIT NUMBER SETTING. 0-9: [0-9],*: [*],#: [#]
INPUT NUMBER AND PRESS START.
0123456789*#01234567

66-28

Purpose	Setup
Function (Content)	Used to record a sound message. Recording is available in 1 ~ 5, max. 6sec for one. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	1) Record a sound message from the handset. 2) Press CUSTOM SETTING to interrupt recording

(This mode is for development, and inhibited in the market.)



66-29

Purpose	Setup
Function (Content)	Used to clear the telephone directory.
Section	FAX
Item	Operation
Operation/Procedure	1) Select with 10 digit key pad and press START to execute the following. 1: Telephone directory clear 2: Telephone directory not clear

66-30

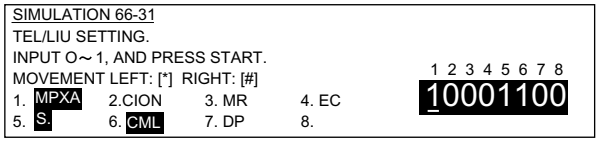
Purpose	Setup
Function (Content)	Used to check TEL/LIU status change. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The TEL/LIU status can be checked. The display is highlighted when the status is changed.

<List of set values>

HS1	Polarity reverse signal
HS2	Polarity reverse signal
RHS	Handset hook SW
EXHS	External telephone hook SW

66-31

Purpose	Setup
Function (Content)	Used to set the TEL/LIU status. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	Entry of only 0 or 1 is effective. Shift the cursor to the bit to enter. Cursor shift keys : ← : * , → : #. The bits are 1, 2, 3, 4, 5, 6, 7, and 8 from the left. The entered bit is highlighted. Press STRT to select the relay.


SIMULATION 66-31
TEL/LIU SETTING.
INPUT O～1, AND PRESS START.
MOVEMENT LEFT: [*] RIGHT: [#]
1. MPXA 2.CION 3. MR 4. EC
5. S. 6. CML 7. DP 8.
1 2 3 4 5 6 7 8
10001100

66-32

Purpose	Setup
Function (Content)	Used to check the received data. (Only when FAX is installed.)
Section	FAX
Item	Operation
Operation/Procedure	The fixed data received from the line are checked.

(This mode is for production check, and inhibited in the market.)

<Display message>

CHECKING	Checking
OK	Checking complete (Coincided)
NG	Checking end (Not coincided)

66-33

Purpose	Setup
Function (Content)	Used to check signal detection.
Section	FAX
Item	Operation
Operation/Procedure	When the signal is detected, the display is highlighted.

(This mode is for production check, and inhibited in the market.)

SIMULATION 66-33
SIGNAL DETECT CHECK.
BUSY TONE CNG CED FNET DTM

66-34

Purpose	Setup
Function (Content)	Used to measure and display the communication time.
Section	FAX
Item	Operation
Operation/Procedure	The time spent for communication is measured. Send/receives performed in the Standard mode. The communication time is displayed with the simulation. (unit: ms)

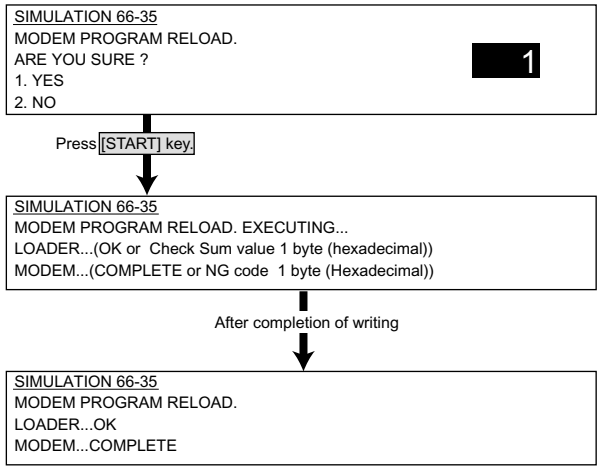
SIMULATION 66-34
COMMUNICATION TIME DISPLAY.
***** ms

<Setup for send>

Communication means	memory transmission
Image quality	Normal
Density	Thin
ECM	ON
Sender record	OFF

66-35

Purpose	Operation test, check
Function (Content)	Modem program rewriting.
Section	FAX
Item	Operation
Operation/Procedure	The modem program in the FAX program is rewritten. 1) Select with 10 digit key pad and press START to execute the following. 1: MODEM program rewrite 2:Not clear 2) Check the loader check sum value. If it is OK, the test is normally completed. If NG, the check sum value (1 byte = hexadecimal) is displayed. 3) If the loader is NG, the MODEM result is also NG. 4) The Modem rewrite result is displayed.

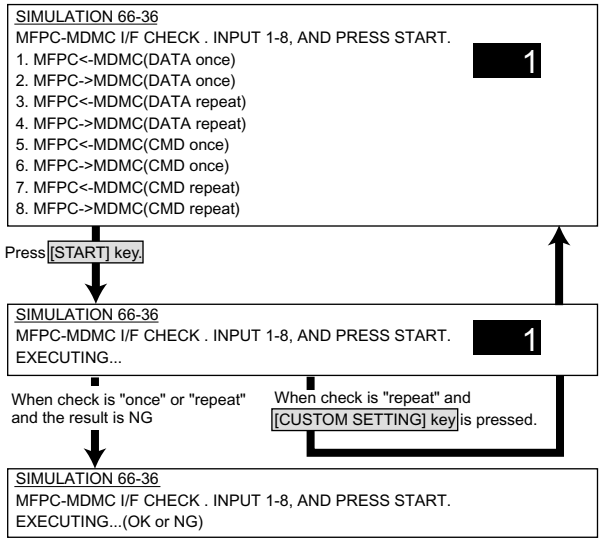


<Result of MODEM writing>

COMPLETE	Writing completed
81	Check sum error
82	Write error
83	Delete error
84	Verify error
NG	Due to loader error

66-36

Purpose	Operation test, check
Function (Content)	Used to check interface between MFPC and MDMC. Check is made in the data line or the command line.
Section	FAX
Item	Operation
Operation/Procedure	1) Select with 10 digit key pad and press START. 2) When check is "repeat," the operation is executed until the result becomes NG or CUSTOM SETTING is pressed.



<List of display values>

1	MFPC <- MDMC	Data line once only
2	MFPC -> MDMC	Data line once only
3	MFPC <- MDMC	Data line repeat
4	MFPC -> MDMC	Data line repeat
5	MFPC <- MDMC	Command line once only
6	MFPC -> MDMC	Command line once only
7	MFPC <- MDMC	Command line repeat
8	MFPC -> MDMC	Command line repeat

6. FAX software switch

A. SOFT SW SETUP CHANGE QUICK REFERENCE

Large item	Medium item	Content of switch	Key operator	Soft SW No.	Purpose of use
Dial (Calling)	Remote machine calling disable	Monitoring polarity reverse in calling		SW 23-3	Dial disable
		Line current detection in dial call		SW 70-5	Dial disable
		Dial call wait time		SW 62-1~2	Dial disable/Erroneous dialing
		Pause time	Initial setup	SW 70-1~4	Dial disable/Erroneous dialing
		Tone/Pulse default setup (Dial call signal)	Initial setup	SW 62-5~6	Dial disable
		•DTMF signal level (high group)		SW 66-5~8	Dial disable in PB (PB/FAX service, etc.)
		•DTMF send level (low group)		SW 67-1~4	Dial disable in PB (PB/FAX service, etc.)
		•DTMF signal send time		SW 68-1~5	Dial disable in PB (PB/FAX service, etc.)
		•DTMF minimum pause		SW 69-1~8	Dial disable in PB (PB/FAX service, etc.)
		Make time (10PPS)		SW 63-1~4	Dial disable in pulse
		Break time (10PPS)		SW 63-5~8	Dial disable in pulse
		Minimum pause (10PPS)		SW 64-1~4	Dial disable in pulse
		Minimum pause (20PPS)		SW 64-5~8	Dial disable in pulse
		Make time (20PPS)		SW 65-1~4	Dial disable in pulse
		Break time (20PPS)		SW 65-5~8	Dial disable in pulse
	Signal detection	Busy tone detection		SW 71-3	Busy tone detection disable
		Busy tone detection cycle		SW 71-4~5	Busy tone detection error
		DT/BT detection level		SW 71-6~7	Busy tone detection disable
		Dial tone detection		SW 70-6	Dial tone detection disable
		Dial tone monitor time		SW 70-7	Dial tone detection error
		Busy tone detection time lower limit		SW 72-1~2	Busy tone detection error
		Busy tone detection time upper limit		SW 72-3	Busy tone detection error
		DT/BT detection frequency range setup		SW 72-4~5	Dial tone/busy tone detection error
	F-NET	SDT signal detection		SW 71-8	F-NET contract line
Redial	Remote machine not responding	Recalling when the remote machine does not respond.		SW 56-8	No recall wanted when remote machine not responding
	Error	Number of recall in communication error	send setup	SW 57-5~8	Effective only when divided with SW59-1
	Error	Setup of reference for the number of recall in communication error		SW 59-1	Use of different recall numbers between when busy and when error
	Error	Recall allowed in communication error	Send setup	SW 59-3	
	Error, busy	Recall interval in communication error or busy	send setup	SW 57-1~4	
	Busy	Number of recall in busy	send setup	SW 58-1~4	
	Busy	Recall allowed in busy	send setup	SW 59-2	
Reception (Calling)	Not receiving	Auto reception call number setup	Receive setup	SW 3-5~8	Number of reception call
		Auto/Manual default setup	User setup	SW 7-2	Initial setup of auto reception/manual reception
	CI detection disable	Call signal ON time lower limit		SW 75-1~4	CI signal detection disable
		Call signal ON time upper limit		SW 75-5~8	CI signal detection disable
		Call signal OFF time lower limit		SW 76-1~4	Ci signal detection disable
		Call signal OFF time upper limit		SW 76-5~6	CI signal detection disable
		Call signal OFF not-detection time		SW 77-1~4	CI signal detection disable
	F-NET contract line	1300Hz detection time		SW 68-7~8	When F-net no-ring reception is not made.

Large item	Medium item	Content of switch	Key operator	Soft SW No.	Purpose of use
External telephone handset	External telephone connection	External telephone connection	Initial setup	SW 3-2	External telephone connection
	Handset connection	handset connection	Initial setup	SW 3-1	Handset connection
	Handset volume setup	Handset volume	Initial setup	SW 52-7~8	Handset volume adjustment
	External telephone off-hook detection	External telephone off-hook detection time		SW 12-1~8	External telephone off-hook detection error
	Remote switch number	Remote switch number setup	Initial setup	SW 13-1~8	Remote switch detection error
	Remote switch setup	Remove reception command		SW 14-1	Remote switch inhibit
		External telephone notification in remote switching		SW 14-2	
		Remote switch enable		SW 14-3	Remote switch is made when calling from external telephone.
TEL/FAX auto switch <Japan Only>		TEL/FAX auto switch setup	Initial setup	SW 7-1	The line is used either for TEL or FAX.
		Voice response send level to the line		SW 51-1	
		Voice response send in TEL/FAX auto switch		SW 51-2~3	
		Number of ring back tone preceding send		SW 9-5~8	
	External telephone call	Number of calls by external telephone pseudo-ringing sound	Initial setup	SW 9-1~4	
		Ring back tone ON time		SW 10-1~4	External telephone call disable CNG detection disable
		Ring back tone OFF time		SW 10-5~8	External telephone call disable CNG detection disable
Communication	General	Signal send level		SW 15-5~8	When the remote machine does not receive signals in a proper level.
		Polarity reversion monitor in communication		SW 23-2	When the line is disconnected during communication, the communication report code 2 of 11 or 20 is resulted.
		ECM (Other than V.34 mode)	Initial setup	SW 17-5	Error resend frequently occurs, resulting in extended communication time.
		Timer setup between flag-adrs (V.21-FSK)		SW 20-3~4	Communication error in a satellite line
		Send/receive coding capacity		SW 17-7~8	Error in JBIG mode
	SG3	V.34 mode function		SW 43-1	Frequent errors in SG3 communication
		V.34 Symbol Rate Mask		SW 43-3~6	Frequent errors in SG3 communication
		V.34 mode function in manual communication		SW 42-8	Frequent errors in SG3 communication in FAX service
Send	G3/SG3	Countermeasures against echo in sending		SW 20-7	An error occurs in phase B.
		DIS reception confirmation		SW 20-2	An error occurs in phase B.
		CED detection time		SW 25-5	CED signal detection error
	SG3	V.34 mode send speed		SW 44-1~4	An error occurs in SG3 communication.
	G3	Echo suppresser tone		SW 27-1~4	An error occurs in V.29 communication
		Modem send speed		SW 16-1~4	To uncertain/certain receiver
		DCS-TCF interval time		SW 24-1	An error occurs in training.
		Error process in RTN reception		SW 30-2	OK is displayed when RTN is received.
Receive	G3/SG3	CSI send		SW 20-1	
		Max. reception length		SW 7-4	When receiving document of 1.5m or longer
	SG3	V.34 mode reception speed		SW 44-5~8	An error occurs in SG3 communication.
	G3	Countermeasures against echo in reception		SW 20-6	An error occurs n phase B in reception.
		Modem speed fixed in reception		SW 16-5~6	Fall back or an error occurs due to poor line conditions.
		EOL detection timer		SW 23-1	EOL time up occurs frequently.
		RTN send line error rate		SW 23-7~8	Line error occurs frequently.
		EQM judgment in TCF reception confirmation		SW 24-2	TCF reception error occurs.
		TCF reception confirmation judgment method		SW 24-3	TCF reception error occurs.

Large item	Medium item	Content of switch	Key operator	Soft SW No.	Purpose of use
Receive print	Paper selection	Sub scan length judgment		SW 35-2	Print is not made on the selected paper.
		Output tray setup	Receive setup	SW 28-1~5	Print is not made on the selected paper.
		Reception index paper insertion tray	Receive setup	SW 29-1~3	To insert index paper for every reception data.
		FAX separator YES/NO	Receive setup	SW 29-4	To insert index paper for every reception data.
		Reception data print output condition setup	Receive setup	SW 35-3~4	To make divided print instead of reduction print.
		Auto reduction/Dispose setup	Receive setup	SW 35-7	To disable reduction print.
		magnification ratio setup in auto reduction		SW 36-1~8	To disable reduction print on fixed size paper.
		Reduction/Dispose setup in printing A3-11x17		SW 35-8	Print is not made on the selected paper when A3-11x17 size document is received.
		Duplex reception print	Receive setup	SW 34-8	To make duplex print of received document
		Rotation print		SW 35-1	To disable rotation print
		Received document output setup in reception		SW 35-5	To print after reception of each page
		Reception width setup of 11 x 17 paper		SW 37-3	To print 11x127 document as B4 width
		Reception size setup		SW 37-1~2	To limit the reception size.

B. Details

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>1</td><td>1-8</td><td>Country code</td><td>Country code set by ITU-T. Control is made according to the set country code.
<table><tr><td>Bit No.</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr><tr><td>Japan</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>North America</td><td>1</td><td>0</td><td>1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table></td><td>1
0
1
1
0
1
0
1</td><td>North America</td><td></td></tr>
<tr><td>2</td><td>1-8</td><td>Not used</td><td></td><td>0
0
0
0
0
0
0
0</td><td></td><td></td></tr>
<tr><td>3</td><td>1</td><td>Handset connection</td><td>Setting to use handset or not. If not set to YES, a handset cannot be used.
<table><tr><td>1: Handset YES</td><td>0: Handset NO</td></tr></table></td><td>0</td><td>NO</td><td>Initial setup</td></tr>
<tr><td></td><td>2</td><td>External telephone connection</td><td>Setting to use an external telephone. If not set to YES, an external telephone cannot be used.
<table><tr><td>1: External telephone YES</td><td>0: External Telephone NO</td></tr></table>* For North America, user cannot set this item to NO (no external telephone).</td><td>1</td><td>YES</td><td>Initial setup</td></tr>
<tr><td></td><td>3</td><td>Default finish stamp</td><td>Setting to use finish stamp after completion of document scan when SPF/DSPF is sued.
<table><tr><td>1: Finish stamp used</td><td>0: Finish stamp not used</td></tr></table>The finish stamp functions only for transmission by use of SPF/DSPF.</td><td>0</td><td>NO</td><td>Operation setup</td></tr>
<tr><td></td><td>4</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>5-8</td><td>Setting of number of times of automatic reception call</td><td>Used to set the number of times of ringing until reception is stated in automatic reception.
Set range is 0 - 15 times by binary entry. When set to 0, no ringing is made.
However, in the night time FAX mode (Main SW, OFF; memory SW, ON), ringing of external telephone is made.</td><td>0
0
1
0</td><td>2 times</td><td>Receive setup</td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>4</td><td>1</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td>Registration of sender's telephone number</td><td>Used to set Enable/Disable of registration of sender's telephone number.
1: Registration inhibited | 0: Registration allowed</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td></td><td>3</td><td>Polling protection</td><td>Used to set Enable/Disable of confidential protection (inhibition of transmission to erroneous party) in transmission of bulletin board. Confidential protection is made by collating the number registered in this machine and that in the other party machine. Sender's number and send request allow number are collated each other. In this machine, Sharp's unique collating of system number ← → ID number is not performed.
1: Not protected | 0: Protected</td><td>0</td><td>Protect</td><td>Polling security setup</td></tr>
<tr><td></td><td>4</td><td>Relay data output</td><td>Used to set whether the document received from the relay station is outputted or not when relay broadcast reception is made.Similar to F code relay broadcast indicating reception.
1: Document received from relay station is not outputted. | 0: Document received from relay station is outputted.</td><td>0</td><td>Output</td><td></td></tr>
<tr><td></td><td>5</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>F code relay broadcast function</td><td>Used to set whether relay broadcast transmission is made by receiving F code relay broadcast instruction from the other party or F code relay broadcast instruction is not received (even though the relay box number is in accord with). Though this item is set to "without this function," F code relay broad cast instruction can be transmitted.
1: F code relay broadcast instruction is received from allowed party. | 0: F code relay broadcast instruction is not received even from allowed party. (Judged as a communication error.)</td><td>0</td><td>Receive</td><td></td></tr>
<tr><td></td><td>7</td><td>F code confidential reception</td><td>Used to set YES/NO of F code confidential reception from the other party (even though the confidential box number is in accord by SUB). Though this item is set to NO, F code confidential transmission can be made.
1: F code confidential reception inhibited (Judged as a communication error.) | 0: F code confidential reception allowed.</td><td>0</td><td>Receive</td><td></td></tr>
<tr><td></td><td>8</td><td>F code communication error process</td><td>Used to set YES/NO of resend in F code transmission.
When, however, SW59-3 (Recall allow in communication error) is set to 0 (Inhibit), recall is not made.
1: Resend | 0: Not resend</td><td>0</td><td>Not resend</td><td></td></tr>
<tr><td>5</td><td>1</td><td>F code password transmission setup when the other party has no function of password</td><td>Used when the other party machine has no function of F code password in F code transmission.
1: Send with password | 0: Disconnecting of line with DCN</td><td>0</td><td>Line disconnecti on with DCN</td><td></td></tr>
<tr><td></td><td>2-5</td><td>Image quality in reception
(Reflected on DIS, not reflected on DTC)</td><td>Used to set reception image resolution in FAX reception ringing (DIS send).
<table>
<tr><th>Bit No.</th><th>2</th><th>3</th><th>4</th><th>5</th></tr>
<tr><td>Machine setup
(including bit pattern which is not described)</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Standard</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Fine + Standard</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Super fine + Fine + Standard</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>Ultra fine+ Super fine + Fine + Standard</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
</table>
Machine setup always allows reception in super fine mode.
(Therefore, the same operation with "1011.")</td><td>0
0
0
0</td><td>Machine setup</td><td></td></tr>
<tr><td></td><td>6</td><td>SUB capacity in reception</td><td>Used to set SUM capacity (Bit 49) to "1" in reception (DIS send).
1: NO (Set to 0) | 0: YES (Set to 1)</td><td>0</td><td>YES</td><td></td></tr>
<tr><td></td><td>7</td><td>SEP capacity in reception</td><td>Used to set SEP capacity (Bit 47) to "1" in reception (DIS send)
1: NO (Set to 0) | 0: YES (Set to 1)</td><td>0</td><td>YES</td><td></td></tr>
<tr><td></td><td>8</td><td>Reception PWD/SID capacity</td><td>Used to set PWD/SID capacity (Bit 50) to "1" in reception (DIS send).
1: NO (Set to 0) | 0: YES (Set to 1)</td><td>0</td><td>YES</td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="8">6</td><td>1-3</td><td>Image priority selection (Standard resolution setup)</td><td>Used to set the initial setup in image selection when scanning document.
When set to 100, the operation is the same as Normal.
<table><tr><th>Bit No.</th><th>1</th><th>2</th><th>3</th></tr><tr><td>Standard</td><td>0 (1)</td><td>0</td><td>0</td></tr><tr><td>Fine</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Super fine</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Ultra fine</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Fine, half tone</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Super fine, half tone</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Ultra fine, half tone</td><td>1</td><td>1</td><td>1</td></tr></table></td><td>0
0
0</td><td>Standard</td><td>Operation setup</td></tr>
<tr><td>4</td><td>Automatic reduction send</td><td>Used to set whether the transmitted document is reduced or the both ends are cut when the transmitted document size is greater than the recording paper size (width) in the other party's machine.
<table><tr><td>1: Send by cutting both edges without reduction</td><td>0: Send by reduction</td></tr></table></td><td>0</td><td>Reduction setup</td><td>Send setup</td></tr>
<tr><td>5</td><td>Rotation send selection (A4 → A4R)
(LTR → LTR-R)</td><td>Used to set whether A4 document is transmitted in A3 width (A4) or A4 document is rotated and transmitted in A4R.
<table><tr><td>1: Send as A3 width document (A4) without rotating</td><td>0: Send as A4 width document (A4R) with rotating</td></tr></table></td><td>0</td><td>Rotate</td><td>Send setup</td></tr>
<tr><td>6</td><td>Rotation send selection (B5R → B5)</td><td>Used to set whether B5R document is transmitted in A4 width (B6R) or the scan image is rotated and transmitted in B4 width (B5).
<table><tr><td>1: Send as A4 width document (B5R) without rotating</td><td>0: Send as B4 width document (B5) with rotating</td></tr></table></td><td>0</td><td>Rotate</td><td>Send setup</td></tr>
<tr><td>7</td><td>Rotation send selection (A5R → A5)
(INVOICE-R → INVOICE)</td><td>Used to set whether A5R document is transmitted to A4 width (A5R) or the scan image is rotated and transmitted in A4 width (A5).
<table><tr><td>1: Send as A4 width document (A5R) without rotating</td><td>0: Send as A4 width document (A5) with rotating</td></tr></table></td><td>0</td><td>Rotate</td><td>Send setup</td></tr>
<tr><td>8</td><td>EEPROM access inhibit</td><td>When an access trouble to EEPROM in the modem controller occurs, FAX operation cannot be performed. When this item is set to INHIBIT, FAX operation can be performed.
The modem controller adjustment values (part of soft switch) are saved in EEPROM.
ALLOW or INIHIBIT of access to EEPROM is set.
<table><tr><td>1: Access to EEPROM inhibited</td><td>0: Access to EEPROM allowed</td></tr></table></td><td>0</td><td>Access allowed</td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
7	1	Telephone/FAX automatic selection	This setting is enabled only when external telephone connection or handset connection is set to YES. 1: TEL/FAX auto switch YES / 0: TEL/FAX auto switch NO	0	NO	Initial setup
	2	Auto/Manual default setup	Used to select automatic reception or manual reception. (Do not set to manual reception when handset or external telephone is not connected. However, setting is possible and reception with on-hook key is possible.) In the manual reception mode, when the machine is in the nighttime FAX mode, the machine is booted but reception ringing is not made. 1: Manual reception / 0: Auto reception	0	Auto reception	User setup
	3	Not used		0		
	4	Max. length of reception	Used to set whether long document transmitted from the other party is received without limitation or reception is terminated as "Reception length over" when received document length reaches 1.5m. The max. length for transmission is monitored by MFP controller (Machine side). 1: Receive without limitation / 0: terminate reception at 1.5m or more (Communication error)	0	Terminate	
	5	Remaining memory capacity for reception	Used to set whether reception receive is made until remaining memory capacity reaches 64KB or less or 128KB or less. 1: Receive until remaining memory is 64KB or less. / 0: Ringing until remaining memory is 128KB or less.	0	128KB or less	
	6	Memory over during reception	Used to set whether received data are outputted or disregarded without outputting in case of memory over during reception. 1: Received data are not outputted. / 0: Received data are outputted.	0	Output	
	7,8	Not used		0 0		
8	1,2	Image capacity in send request (reflected on DTC)	Used to set image capacity of the machine when polling. It is reflected on DTC, and is unrelated to SW5-2-5 (Image capacity during reception). Bit No. 1 2 Standard 1 1 Fine 1 0 Super fine 0 1 Ultra fine 0 0	0 0	Ultra fine	
	3	Error page output selection in FAX reception error	Used to set whether error page is outputted or disposed without outputting in case of a communication error during FAX reception.When, however, an error occurs during F code relay instruction reception or F code confidential reception, the error page is not outputted regardless of this SW setup. 1: Error page is not outputted. / 0: Error page is outputted.	0	Output	
	4	Quick online/memory transmission selection	Used to select quick online transmission mode or memory transmission mode. 1: Memory transmission / 0: Quick online transmission	0	Quick online transmission	Send setup
	5-8	Number of pages of dial ringing in quick online transmission	Used to set the number of pages of scanning at the dial ringing timing in quick online transmission. Can be set in the range of 0 - 15 pages by binary input.	0 0 0 1	1 page	
9	1-4	Number of ringing by external telephone pseudo-ringing (Ring back tone is sent in synchronization.)	Used to set the number of pseudo-ringing (machine is also ringing) of external telephone and ring back tones to the line in automatic selection of TEL/FAX. Can be set in the range of 0 - 15 times. When set to 0, however, ringing is made 99 times.	0 1 1 0	6 times	Initial setup
	5-8	Number of ring back tone preceding transmission (number of times until ringing by external pseudo-ringing is started)	Used to set the number of times of RBT transmission to the other party machine until external telephone is called after ringing in automatic selection of TEL/FAX. Can be set in the range of 0 - 15 times. Effective only in Japan.	0 0 0 0	3 times	

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
10	1-4	Ring back tone ON time	Used to set ring back tone ON time to pseudo-ringing to external telephone and the line. Can be set in the range of 0sec - 3sec in 200ms increment by binary input. When, however, set to 0sec, it is the same as when set to 1.	0 1 0 1	1 sec	
	5-8	Ring back tone OFF time	Used to set ring back tone OFF time to pseudo-ringing to external telephone and the line. Can be set in the range of 0sec - 3sec in 200ms increment by binary input. When, however, set to 0sec, it is the same as when set to 2sec. When set to less than 2sec, the busy tone may be erroneously detected.	1 0 1 0	2 sec	
11	1-4	Not used		0 0 0 0		
	5	Automatic wake up mode	Used to set whether the machine is automatically wake up and the received document is outputted or the received document is saved in memory and will be outputted when the power is turned on next time when a FAX message is received with the main SW ON and the FAX power SW ON or in the power save mode. 1: Saved in memory without booting machine / 0: Output by automatic booting of machine	0	Output	Initial setup
	6,7	Not used		0 0		
	8	Selection of resend page in case of an error	Used to select resend pages in case of an error in transmission without F code. If transmission includes F code, all pages are resent. 1: All pages (Resend all pages from the first page including transmitted pages.) / 0: After error page (Resend after error page)	0	After the error page	
12	1-8	External telephone hook detection time	Used to set the time to recognize external telephone off-hook detection. The set range is 0ms - 2550ms in the increment of 10ms by binary input.	0 0 0 1 1 1 1 0	300ms	
13	1-8	Remote switch number setup	Used to set the number for remote switch reception from an external telephone by binary input. "XX*" and "*" in the remote switch number are fixed. Bit No 1 2 3 4 5 6 7 8 0 1 0 1 1 0 1 0 2nd digit / 1st digit	0 1 0 1 1 0 1 0	5*	Initial setup
14	1	Remote reception instruction	Used to set YES/NO of remote switch from an external telephone. 1: NO (remote switch disable) / 0: YES (Remote switch enable)	0	YES	
	2	Notification to external telephone in remote switch	Used to set whether an alarm notification is sent to the external telephone or not when remote switch from an external telephone is performed. 1: NO (Not notify) / 0: YES(Notify)	0	YES	
	3	Remote switch operation allowed	Used to set whether remote switch from an external telephone is allowed only when receiving or when sending and receiving. 1: Switch enable in call ring/reception ring / 0: Switch enable only in reception ring For North America, remote switch is allowed even in standby state. For north America, this switch is disabled.	0	Only when receiving	
	4-8	Not used		0 0 0 0 0		

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>15</td><td>1-4</td><td>Not used</td><td></td><td>0
0
0
0</td><td></td><td></td></tr>
<tr><td></td><td>5-8</td><td>Signal send level</td><td>Used to set the signal send level from the modem. The set range is 0 - 15 in increment of 1dBm by binary input. For an actual line, -(set value) - about 5dBm. Since a different country (destination) has a different max. level, when the max. level is set, it is the max. level in the current country code, except for North America.
The max. Send level limit is : Australia : -9dBm Europe : -10dBm</td><td>0
1
0
1</td><td>About 10dBm</td><td>Adjustment value</td></tr>
<tr><td>16</td><td>1-4</td><td>Modem transmission speed (Except for V.34) (DCS)</td><td>Used to set the first speed in transmission of other than V.34. Reflected on DSC. Transmission is made not always at this speed.
<table>
<tr><th>Bit No.</th><th>1</th><th>2</th><th>3</th><th>4</th><th>Bit No.</th><th>1</th><th>2</th><th>3</th><th>4</th></tr>
<tr><td>V.27ter 2400bps</td><td>0</td><td>0</td><td>0</td><td>0</td><td>V.17 14400bps</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>V.29 9600bps</td><td>0</td><td>0</td><td>0</td><td>1</td><td>V.17 9600bps</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>V.27ter 4800bps</td><td>0</td><td>0</td><td>1</td><td>0</td><td>V.17 12000bps</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>V.29 7200bps</td><td>0</td><td>0</td><td>1</td><td>1</td><td>V.17 7200bps</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>V.33 14400bps</td><td>0</td><td>1</td><td>0</td><td>0</td><td>★</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>★</td><td>0</td><td>1</td><td>0</td><td>1</td><td>★</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>V.33 12000bps</td><td>0</td><td>1</td><td>1</td><td>0</td><td>★</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>★</td><td>0</td><td>1</td><td>1</td><td>1</td><td>★</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
For bit marked with ★, set to V.17 14400bps.</td><td>1
0
0
0</td><td>V.17-14400bps</td><td></td></tr>
<tr><td></td><td>5,6</td><td>Reception modem speed fixed (other than V.34) (DIS)</td><td>Used to set the first speed in transmission of other than V.34. Transmission is made not always at this speed.
<table>
<tr><th>Bit No.</th><th>5</th><th>6</th></tr>
<tr><td>Fixing NO</td><td>0</td><td>0</td></tr>
<tr><td>V.29-9600bps</td><td>0</td><td>1</td></tr>
<tr><td>V.27ter-4800bps</td><td>1</td><td>0</td></tr>
<tr><td>V.17-14400bps</td><td>1</td><td>1</td></tr>
</table></td><td>0
0</td><td>Not fixed</td><td></td></tr>
<tr><td></td><td>7,8</td><td>Not used</td><td></td><td>0
0</td><td></td><td></td></tr>
<tr><td>17</td><td>1-4</td><td>Not used</td><td></td><td>0
0
0
0</td><td></td><td></td></tr>
<tr><td></td><td>5</td><td>ECM (Valid for other than V.34) (Reflected on V.21 DIS/DCS.)</td><td>Used to set whether error resend mode is executed or not. Valid only when communication is made in a mode other than V.34.
<table>
<tr><td>1: NO (ECM function NO)</td><td>0: YES (ECM function YES)</td></tr>
</table></td><td>0</td><td>YES</td><td>Initial setup</td></tr>
<tr><td></td><td>6</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7,8</td><td>Coding capacity in send/receive (Reflected on DIS/DCS/DTC)</td><td>Used to set coding capacity to transmit to the other party machine in a communication of other than V.34.
<table>
<tr><th>Bit No.</th><th>7</th><th>8</th></tr>
<tr><td>JBIG/MMR/MR/MH</td><td>0</td><td>0</td></tr>
<tr><td>MMR/MR/MH</td><td>0</td><td>1</td></tr>
<tr><td>MR/MH</td><td>1</td><td>0</td></tr>
<tr><td>MH</td><td>1</td><td>1</td></tr>
</table></td><td>0
0</td><td>JBIG/MMR/MR/MH</td><td></td></tr>
<tr><td>18</td><td>1-8</td><td>Not used</td><td></td><td>0
1
0
0
0
0
0
1</td><td></td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
19	1-8	Not used		0 0 0 0 0 0 0 0		
20	1	CSI send	Used to set whether CSI send is performed or not. The CSI signal includes the sender's number. 1:CSI signal not send / 0:CSI signal send	0	Send	
	2	DIS reception confirmation in G3 transmission	Used to set whether DIS reception is conformed or not in G3 mode transmission (valid only in other than V.34). This is valid only when communication is made in other then V.34. 1: Reception of DIS is checked twice. / 0: Reception of NSF/DIS is checked once, reception without NSF is check twice.	0	0	
	3,4	Timer setup between flag and address (V.21-FSK)	Used to set the timer between Flag and address when receiving FSK signal in a communication other than V.34. Bit No. 3 4 6sec 0 0 15sec 0 1 30sec 1 0 120sec 1 1	0 0	6sec	
	5	Not used		0		
	6	Countermeasures against echo in reception (CED tone send interval)	Used to set the time interval (sec) from sending CED or ANSam to sending FSK signal of DIS. If either SW20-6 or SW2-7 is YES, disconnection of the line after completion of communication is delayed for 1.5sec. 1: 500msec / 0: 75msec	0	75msec	
	7	Countermeasures against echo in transmission (Used to set the hold time from DIS reception to signal sending.)	Used to set the time interval (sec) from DIS reception to DCS signal sending. This is valid only in the mode other than V.34. If either SW20-6 or SW2-7 is YES, disconnection of the line after completion of communication is delayed for 1.5sec. 1: 500msec / 0: 200msec	0	200msec	
	8	Not used		0		
21	1-3	Setup of call time in auto transmission (T0 timer setup)	Used to set the time (sec) of calling when the other party does not receive the call in automatic transmission. The set range if 30 - 60sec in the increment of 5sec by binary input of N into "(5sec x N) + 30sec." N is of 0 - 7. When N is set to 7 (setup to 65sec), it is the same as setup to 45sec.	0 1 1	45sec	Send setup
	4-7	T1timer setup	Used to set the time (sec) for disconnection of line when the other party does not respond in FAX communication. The set range is 30 - 105sec in the increment of 5sec by binary input of N into "(5sec x N) + 30sec." N is set in the range of 0 - 15. T1 timer is the timer for the time from recognition of FAX CED or DCS) by the other party after connection of line. The ITU-T standard is 35 ± 5sec.	0 0 1 0	40sec	
	8	Not used		0		
22	1-4	Not used		0 0 0 0		
	5,6	T4 timer setup at auto mode (+1.5sec for manual)	Used to set the timer up to respond and receive. Timer for DCS signal to respond and receive. For the ITU-T standard, 3sec ± 15%. Bit No. 5 6 3sec 0 0 4sec 0 1 5sec 1 0 6sec 1 1	0 0	3sec	
	7,8	Not used		0 0		

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
23	1	EOL detection timer	Used to set the detection timer (sec) of EOL (End Of Line) in Phase C reception of G3 mode. If an error occurs in EOL detection, it is processed as EOL not detected. 1: 25sec / 0: 13sec	0	13sec	
	2	Polarity reversion monitor during transmission	Used to set whether polarity reversion is monitored on the dial calling side or not during transmission. 1: Polarity reversion is not monitored. / 0: Polarity reversion is monitored. Functions only in Japan.	0	Monitor	
	3	Polarity reversion is monitored during calling	Used to set whether polarity reversion is monitored or not when dial calling. 1: Polarity reversion is not monitored. / 0: Polarity reversion is monitored. Functions only in Japan.	0	Monitor	
	4-6	Not used		0 0 1		
	7,8	RTN send line error rate	Used to set the threshold value for judgment of RTN sending in G3 reception. The threshold value is of STD conversion. The half of this value is used for judgment of RTP sending. When, for example, FINE is received, the threshold value is doubled. Bit No. 7 8 6 liens 0 0 9 lines 0 1 60 lines 1 0 120 lines 1 1	1 0	60 lines	
24	1	DCS-TCF interval time	Used to set the time interval (sec) from DCS sending to TCF signal sending. The ITU-T standard is 75 ± 20ms. 1: 150msec / 0: 75msec	0	75msec	
	2	EQM judgment threshold value when confirming TCF reception	Used to set whether the threshold value (FTT) is set severely or loosely for EQM judgment in confirmation of TCF reception. If set loosely, TCF is easy to return CFR, but apt to cause an error in PIX (Phase C). 1: Loosely / 0: Severely	0	Severely	
	3	Judgment method in confirmation of TCF reception	Used to set the judgment method of FTT in confirmation of TCF reception. 1: Judged by EQM value. TCF is checked loosely. / 0: Received data is judged to be 0 or not, and EQM value is judged.	0	0	
	4,5	Not used		0 0		
	6	CED signal send	Used to set whether CED signal is sent or not. Valid only when SW43.1 (V.34 mode function) is OFF. This is because ANSam signal is indispensable in V.34 mode. 1:CED signal is not sent. / 0:CED signal is sent.	0	Send	
	7,8	CED signal send time	Used to set the time for CED signal send. ANSam signal follows SW46-7 ~ 8. Bit No. 7 8 3sec 0 0 4sec 0 1 5sec 1 0 6sec 1 1	0 0	3sec	

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="8">25</td><td>1,2</td><td>CED/ANSam send start wait time</td><td>Used to set the wait time for sending CED/ANSam signals to the line from FAX reception state after connection of the line.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>2.25sec</td><td>0</td><td>0</td></tr><tr><td>3sec</td><td>0</td><td>1</td></tr><tr><td>4sec</td><td>1</td><td>0</td></tr><tr><td>2.25sec</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>2.25sec</td><td></td></tr>
<tr><td>3,4</td><td>CNG send time</td><td>Used to set the wait time from connection of the line to sending of CNG signal to the line.
<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>0.5sec</td><td>0</td><td>0</td></tr><tr><td>1sec</td><td>0</td><td>1</td></tr><tr><td>1.5sec</td><td>1</td><td>0</td></tr><tr><td>2.0sec</td><td>1</td><td>1</td></tr></table></td><td>1
1</td><td>2sec</td><td></td></tr>
<tr><td>5</td><td>CED detection time</td><td>Used to set the wait time for determination of the signal when detecting CED/ ANSam signal.
<table><tr><td>1: 1000ms</td><td>0: 500ms</td></tr></table></td><td>0</td><td>500ms</td><td></td></tr>
<tr><td>6-8</td><td>Not used</td><td></td><td>0
0
0</td><td></td><td></td></tr>
<tr><td rowspan="3">26</td><td>1,2</td><td>Number of times of RCP send</td><td>Used to set the number of times of RCP send when sending Phase C in ECM system.
When the other party cannot detect the RCP frame, it becomes easy to detect RCP.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>3 times</td><td>0</td><td>0</td></tr><tr><td>6 times</td><td>0</td><td>1</td></tr><tr><td>9 times</td><td>1</td><td>0</td></tr><tr><td>12 times</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>3 times</td><td></td></tr>
<tr><td>3</td><td>Number of RTC EOL send</td><td>Used to set how many EOL's are sent as RTC when sending Phase C.
When the other party cannot detect the RCP, it becomes easy to detect RCP.
<table><tr><td>1: 12 times</td><td>0: 6 times</td></tr></table></td><td>0</td><td>6 times</td><td></td></tr>
<tr><td>4-8</td><td>Not used</td><td></td><td>0
0
0
0
0</td><td></td><td></td></tr>
<tr><td rowspan="2">27</td><td>1-4</td><td>Echo suppressor tone setup</td><td>Used to set YES/NO of echo suppressor tone in each high-speed modulation system.
<table><tr><td></td><td>Bit No</td><td></td><td></td></tr><tr><td>V.33</td><td>1</td><td>1: NO</td><td>0: YES</td></tr><tr><td>V.17</td><td>2</td><td>1: NO</td><td>0: YES</td></tr><tr><td>V.29</td><td>3</td><td>1: NO</td><td>0: YES</td></tr><tr><td>V.27</td><td>4</td><td>1: NO</td><td>0: YES</td></tr></table></td><td>0
0
1
0</td><td>YES
(No for V.29 only)</td><td></td></tr>
<tr><td>5-8</td><td>Not used</td><td></td><td>0
1
1
1</td><td></td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>28</td><td>1-5</td><td>Output tray setup</td><td>Used to specify the default output tray in the combination of each output system.
For the main body only or the main body + duplex without manual feed, output is always made from the center tray.
<table><tr><th></th><th>Bit No</th><th></th><th></th></tr><tr><td>Machine + Manual duplex</td><td>1</td><td>1: Left tray</td><td>0: Center tray</td></tr><tr><td>Built-in finisher + Duplex/Built-in finisher</td><td>2</td><td>1: Left tray</td><td>0: Finisher upper tray</td></tr><tr><td>Mail bin stacker + Duplex/Mail bin stacker</td><td>3</td><td>1: Left tray</td><td>0: Mail bin upper tray</td></tr><tr><td>Machine + Console finisher + Duplex</td><td>4</td><td>1: Finisher tray</td><td>0: Center tray</td></tr><tr><td>Mail bin stacker + Console finisher</td><td>5</td><td>1: Finisher tray</td><td>0: Mail bin upper tray</td></tr></table></td><td>1
1
1
1
1</td><td>1</td><td>Receive setup</td></tr>
<tr><td></td><td>6-8</td><td>Not used</td><td></td><td>0
0
0</td><td></td><td></td></tr>
<tr><td>29</td><td>1-3</td><td>Reception separator paper insertion tray</td><td>Used to set the tray to discharge the reception separator paper when the reception separator paper setup is valid and a FAX reception document is printed.
When set to 110 or 111, tray 1 is selected.
<table><tr><th>Bit No.</th><th>1</th><th>2</th><th>3</th></tr><tr><td>Tray 1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Tray 2</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Tray 3</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Tray 4</td><td>0</td><td>1</td><td>1</td></tr><tr><td>LCC</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Multi manual feed</td><td>1</td><td>0</td><td>1</td></tr></table></td><td>0
0
0</td><td>Tray 1</td><td>Receive setup</td></tr>
<tr><td></td><td>4</td><td>FAX separator YES/NO</td><td>Used to set YES/NO of separator paper output when printing FAX reception data.
<table><tr><td>1: Separation paper is outputted.</td><td>0: Separation paper is not outputted.</td></tr></table></td><td>0</td><td>Not output</td><td>Receive setup</td></tr>
<tr><td></td><td>5-8</td><td>Not used</td><td></td><td>0
0
0
0</td><td></td><td></td></tr>
<tr><td>30</td><td>1</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td>Error reception in RTN reception</td><td>Used to set whether RTN signal reception is judged as an error or not. (Only in G3 mode)
<table><tr><td>1: RTN reception is not judged as an error.</td><td>0: RTN reception is judged as an error.</td></tr></table></td><td>0</td><td>Judges as an error</td><td></td></tr>
<tr><td></td><td>3-8</td><td>Not used</td><td></td><td>0
0
0
0
0
0</td><td></td><td></td></tr>
<tr><td>31</td><td>1-8</td><td>Not used</td><td></td><td>0
0
0
0
0
0
0
0</td><td></td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
32	1-8	Not used		0 0 0 0 0 0 0 0		
33	1-7	Not used		0 0 0 0 0 0 0		
	8	Paper selection when reception printing (LTR/A4)	Used to set whether LTR is confirmed first of all in selection of paper for reception printing or paper that provides smaller reduction rate of A4 and LTR is selected. 1: Priority on LTR / 0: Priority on LTR/A4 reduction rate	0	Priority on LTR/A4	
34	1-7	Not used		0 0 0 0 0 0 1		
	8	Duplex reception print	Used to set whether reception data are printed on duplex surfaces when printing FAX reception. 1: Duplex reception is printed. / 0: Duplex reception is not printed.	0	Not print	Receive setup
35	1	Rotational print	Used to set whether rotation print is made or not when received data can be printed by rotating in FAX reception printing. 1: Received data are not rotated. / 0: Received data are rotated.	0	Rotational print	
	2	Sub scan length judgment	Used to set whether priority is given to the width or the length when selecting the optimum paper in received data printing. 1: Priority on data width / 0: Priority on data length	0	Priority on data length	
	3,4	Received data print condition setup	Used to set selection of the optimum paper for received data printing.	0 0	00	Receive setup
			Bit No. 3 4 Optimum size/Large size/reduction 0 0 Optimum size/Large size 0 1 Optimum size/Large size/Division 1 0 Optimum size/Large size/reduction 1 1			
	5	Received document output setup	Used to set whether all received data are collectively printed after completion of all FAX reception or each page is printed after completion of reception of each page. 1: Each page is printed after reception of each page. / 0: Collectively printed after completion of all FAX reception	0	Collectively outputted	
	6	Not used		0		
	7	Automatic reduction/ dispose setup	Used to set whether automatic reduction is made so that the received data can be printed on a page if reduced, when a document the size of which exceeds the printable limit but is within the magnification ratio setup range of automatic reduction is received. 1: Automatic reduction is not made and data exceeding the printable limit are disposed. / 0: Printed by automatic reduction	0	Reduction	Receive setup
	8	Reduction/dispose setup when printing A3, 11X 17	Used to set whether the main scan width data are reduced or data on both edges are disposed without reduction when A3 width document is received and printed on 11x 17 inch paper. When set to "Reduction," the data are reduced by 94%. 1: Dispose / 0: Reduction	1	Dispose	

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>36</td><td>1-8</td><td>Setup of magnification ratio in automatic reduction</td><td>Used to set the percentage by which the received document is longer than the printable length when automatic reduction print is enabled. The setup range is 85 - 100% by binary input of N into "N x 1% + 85%."When set to outside the range, similar to the default value of 90%.</td><td>0
0
0
0
0
1
0
1</td><td>90%</td><td></td></tr>
<tr><td>37</td><td>1,2</td><td>Reception size specification
(Indicates reception capacity.)</td><td>Used to set the reception allowable document width of the machine which is notified to the other party machine when receiving.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>By installed cassette</td><td>0</td><td>0</td></tr><tr><td>A4 width</td><td>0</td><td>1</td></tr><tr><td>B4(A4•B4) width</td><td>1</td><td>0</td></tr><tr><td>A3(A3•B4•A4) width</td><td>1</td><td>1</td></tr></table>When using the installed cassette, the max. cassette size as follows :
<table><tr><td>A5/5.5 x 8.5R size</td><td>A4 width</td></tr><tr><td>B5 size</td><td>B4 width</td></tr><tr><td>A4/8.5 x 11 size</td><td>A3 width</td></tr><tr><td>8.5 x 13/8.5 x 14</td><td>A3 width</td></tr><tr><td>B4 size</td><td>B4 width</td></tr><tr><td>11 x 17</td><td>B4/A3 width (Switch by FAX soft SW)</td></tr><tr><td>A3 size</td><td>A3 width</td></tr></table>A3 width is used when no tray is set for Fax reception and printing and when the cassette is open in case of installed cassettes.</td><td>0
0</td><td>By installed cassette</td><td></td></tr>
<tr><td></td><td>3</td><td>11 x 17 paper reception width setup</td><td>Used to set the reception allowable document width when 11 x 17 paper is selected as FAX print paper.
<table><tr><td>1:B4(B4•A4) width</td><td>0:A3(A3•B4•A4) width</td></tr></table></td><td>0</td><td>A3 width</td><td></td></tr>
<tr><td></td><td>4</td><td>Date/sender print language selection</td><td>Used to set the date and FAX No. print (depending on the destination) at the top of the document when transmitting. Date, FAX No. and fonts are switched.
<table><tr><td>1: For North America</td><td>0: Depends on each destination</td></tr></table></td><td>0</td><td>Depends on the destination.</td><td></td></tr>
<tr><td></td><td>5</td><td>Default date/sender print</td><td>Used to set whether the date and sender information are added at the top of the transmitted document as default.
<table><tr><td>1: Not added</td><td>0: Added</td></tr></table></td><td>0</td><td>Added</td><td>Send setup</td></tr>
<tr><td></td><td>6</td><td>Date/sender information print position setup</td><td>Used to set the print position of the date/sender information at the top of the transmitted document.
<table><tr><td>1: Top of document</td><td>0: Outside of document</td></tr></table></td><td>0</td><td>Outside the document</td><td>Send setup</td></tr>
<tr><td></td><td>7</td><td>Page number print</td><td>Used to set whether the page number is added at the date/sender information print position or not. (Page number/Total page number in case of memory transmission)
<table><tr><td>1: Not added</td><td>0: Added</td></tr></table></td><td>0</td><td>Added</td><td>Send setup</td></tr>
<tr><td></td><td>8</td><td>Display of date/sender information/print time</td><td>Used to set time display of date/sender information print.
In the case of 12-hour format, it starts at 0 and ends at 11:59.
<table><tr><td>1: 12-hour format</td><td>0: 24-hour format</td></tr></table></td><td>1</td><td>12-hour format</td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="11">38</td><td>1,2</td><td>Protocol monitor</td><td>Used to set whether the protocol monitor (which is recognized by the FAX) for one communication is printed or not.
When a new communication is made before printing the protocol monitor, the old protocol data are deleted. (Overwriting)
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>NO (Not print)</td><td>0</td><td>0</td></tr><tr><td>NO (Not print)</td><td>0</td><td>1</td></tr><tr><td>Print (Always)</td><td>1</td><td>0</td></tr><tr><td>Only in an error (Print)</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>NO</td><td></td></tr>
<tr><td>3</td><td>Line monitor display</td><td>Used to set whether the communication speed during communication and the reception level during reception are displayed on the LCD or not.
<table><tr><td>1: Displayed on LCD</td><td>0: Not displayed on LCD</td></tr></table></td><td>0</td><td>Not displayed</td><td></td></tr>
<tr><td>4-8</td><td>Time print (o'clock) on the communication report table</td><td>Used to set the time print (o'clock) when time is printed on the communication report table. The set range is 0 - 24 o'clock by binary input. If a value of 24 - 31 is inputted, it is set to 0 o'clock.</td><td>0
0
0
0
1</td><td>1 o'clock</td><td>Initial setup</td></tr>
<tr><td>39</td><td>1</td><td>Communication report table printing at the specified time</td><td>Used to set whether the communication report table is outputted at the specified time or not.
Though time specification print is enabled, if the specified time is in the nighttime FAX mode, output is not made.
<table><tr><td>1: Communication report table is printed at the specified time.</td><td>0: Communication report table is not printed at the specified time.</td></tr></table></td><td>0</td><td>Not output</td><td>Initial setup</td></tr>
<tr><td>2-7</td><td>Time print (min) on the communication report table</td><td>Used to set the time print (min) when time is printed on the communication report table.
The set range is 0 - 59min by binary input. If a value of 60 - 63 is inputted, it is set to 0 min.</td><td>0
0
0
0
0
1</td><td>1 min</td><td>Initial setup</td></tr>
<tr><td>8</td><td>Automatic print of communication report table at memory full</td><td>Used to set whether the communication report table is automatically outputted or not when the number of send/receive items reaches 50 items.
<table><tr><td>1: Automatic print</td><td>0: Not print</td></tr></table>If the report is not outputted, the oldest data are overwritten.</td><td>0</td><td>Not output</td><td>Initial setup</td></tr>
<tr><td>40</td><td>1</td><td>Print of total communication time on the communication report table</td><td>Used to set whether the total communication time and the total number of pages are printed on the communication report table or not.
<table><tr><td>1: Not print</td><td>0: The total time and the total number of pages are printed.</td></tr></table></td><td>0</td><td>Print</td><td></td></tr>
<tr><td>2</td><td>Transmitted document content print in memory transmission error</td><td>Used to set whether some part of the transmitted document is printed on the communication report table (transmission) in case of memory transmission error.
<table><tr><td>1: Transmitted document is not printed.</td><td>0: Transmitted document is printed.</td></tr></table></td><td>0</td><td>Print</td><td>Initial setup</td></tr>
<tr><td>3</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>4</td><td>Report output (When canceling)</td><td>Used to set whether the communication report table is outputted or not when transmission is canceled during transmission of document.
<table><tr><td>1: Communication report table is printed.</td><td>0: Communication report table is not printed.</td></tr></table></td><td>0</td><td>Not output</td><td></td></tr>
<tr><td>5</td><td>Report output setup (in confidential reception)</td><td>Used to set whether the communication report table (reception) is outputted or not in confidential reception.
<table><tr><td>1: Communication report table is not printed.</td><td>0: Communication report table is printed.</td></tr></table></td><td>0</td><td>Output</td><td>Initial setup</td></tr>
<tr><td>6,7</td><td>Not used</td><td></td><td>0
1</td><td></td><td></td></tr>
<tr><td>8</td><td>Department management</td><td>Used to set whether department management is performed or not. When department management is performed, the management of number of pages in made only for FAX transmission.
<table><tr><td>1: YES</td><td>0: NO</td></tr></table></td><td>0</td><td>NO</td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="11">41</td><td rowspan="2">1,2</td><td rowspan="2">Report output (transmission)</td><td rowspan="2">Used to set the communication report table output after transmission (except for sequential broadcast, sequential polling, relay broadcast).
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>Print inhibited</td><td>0</td><td>0</td></tr><tr><td>All print</td><td>0</td><td>1</td></tr><tr><td>Only when transmission is failed</td><td>1</td><td>0</td></tr><tr><td>Only when transmission is failed</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td rowspan="2">Only when transmission failed</td><td rowspan="2">Initial setup</td></tr>
<tr><td>3,4</td><td>Not used</td><td>0
0</td></tr>
<tr><td rowspan="2">5,6</td><td rowspan="2">Report output (sequential broadcast, sequential polling, relay broadcast)</td><td rowspan="2">Used to set the communication report table output after transmission (sequential broadcast, sequential polling, relay broadcast).
<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>Print inhibited</td><td>0</td><td>0</td></tr><tr><td>All print</td><td>0</td><td>1</td></tr><tr><td>Only address to which transmission is failed</td><td>1</td><td>0</td></tr><tr><td>All print</td><td>1</td><td>1</td></tr></table></td><td>0
1</td><td rowspan="2">All print</td><td rowspan="2">Initial setup</td></tr>
<tr><td rowspan="2">7,8</td><td rowspan="2">Report output (reception)</td><td rowspan="2">Used to set the communication report table output in reception (except for confidential reception).
<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Print inhibited</td><td>0</td><td>0</td></tr><tr><td>All print</td><td>0</td><td>1</td></tr><tr><td>Only in case of an error</td><td>1</td><td>0</td></tr><tr><td>Print inhibited</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td rowspan="2">Print inhibited</td><td rowspan="2">Initial setup</td></tr>
<tr><td rowspan="3">42</td><td>1-3</td><td>Not used</td><td>0
0
0</td></tr>
<tr><td>4</td><td>Win FAST function</td><td>Used to set the management function by FAX communication procedures through the telephone line.
<table><tr><td>1: YES</td><td>0: NO</td></tr></table></td><td>0</td><td>NO</td><td></td></tr>
<tr><td>5-7</td><td>Not used</td><td>0
0
0</td></tr>
<tr><td rowspan="3">43</td><td>8</td><td>V.34 mode function in manual communication</td><td>Used to set Enable/Disable of V.34 mode function in manual communication. When, however, SW43-1 is set to "1:disable," V.34 mode is disabled though this switch is set to "0:enable."
<table><tr><td>1: V.34 mode function disable</td><td>0: V.34 mode function enable</td></tr></table></td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>1</td><td>V.34 mode function</td><td>Used to set Enable/Disable of V.34 mode function in the machine when sending/ receiving.
<table><tr><td>1: V.34 mode function disable</td><td>0: V.34 mode function enable</td></tr></table></td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>2</td><td>Not used</td><td>0</td></tr>
<tr><td rowspan="2">3-6</td><td rowspan="2">V.34Symbol Rate Mask (when receiving)</td><td rowspan="2">Used to set Symbol Rate in reception of V.34 mode.
When set to other than the below, it is set as the default (0101).
<table><tr><th>Bit No.</th><th>3</th><th>4</th><th>5</th><th>6</th></tr><tr><td>2400</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2400</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>2800/2400</td><td>0</td><td>0</td><td>1</td><td>0</td></tr><tr><td>3000/2800/2400</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>3200/3000/2800/2400</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>3429/3200/3000/2800/2400</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table></td><td>0
1
0
1</td><td>3429</td><td></td></tr>
<tr><td>7,8</td><td>Not used</td><td>0
0</td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="2">44</td><td>1-4</td><td>V.34 mode transmission speed</td><td>Used to set the communication speed (capacity) when transmitting in V.34 mode.
The set range is 2400bps - 33600bps in the increment of 2400bps by binary input of N into "2400(bps) x N."When N is set to 0000, it is set to 2400bps. When set to 1111, it is set to 33600bps.When, however, set to 2400bps, SW45-1~6 must be disabled. When set to 33600bps, SW45-7 must be enabled "1". This switch sets only the capacity and communication is not always performed at the set speed.</td><td>1
1
1
0</td><td>33600bps</td><td></td></tr>
<tr><td>5-8</td><td>V.34 mode reception speed</td><td>Used to set the communication speed (capacity) when receiving in V.34 mode.
The set range is 2400bps - 33600bps in the increment of 2400bps by binary input of N into "2400(bps) x N."When N is set to 0000, it is set to 2400bps. When set to 1111, it is set to 33600bps.When set to 2400bps, however, SW43-3~6 must be set to 2400: "0000."
When set to 33600bps, SW43-3~6 must be set to 3429: "0101."
This switch sets only the capacity and communication is not always performed at the set speed.</td><td>1
1
1
0</td><td>33600bps</td><td></td></tr>
<tr><td rowspan="8">45</td><td>1</td><td>2800 Symbol Rate Mask in V.34 communication</td><td>Used to set Enable/Disable of 2800Hz as Symbol Rate of V.34.
When set to Disable, 2800Hz is not selected.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>2</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td>3000 Symbol Rate Low Carrier setup in V.34 transmission</td><td>Used to set Enable/Disable of Low/High carrier when selecting 3000Hz as Symbol Rate of V.34.When this is set to Disable, Low of 3000Hz is not selected. It is valid only in transmission.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>4</td><td>3000 Symbol Rate High Carrier setup in V.34 transmission</td><td>Used to set Enable/Disable of Low/High carrier when selecting 3000Hz as Symbol Rate of V.34. When this is set to Disable, High of 3000Hz is not selected. It is valid only in transmission.When both of Low/High are set to Disable, Symbol Rate=3000Hz is not selected.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>5</td><td>3200 Symbol Rate Low Carrier setup in V.34 mode</td><td>Used to set Enable/Disable of Low/High carrier when selecting 3000Hz as Symbol Rate of V.34. When this is set to Disable, Low of 3200Hz is not selected. It is valid only in transmission.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>6</td><td>3200 Symbol Rate High Carrier setup in V.34 transmission</td><td>Used to set Enable/Disable of Low/High carrier when selecting 3000Hz as Symbol Rate of V.34. When this is set to Disable, High of 3200Hz is not selected. It is valid only in transmission.When both of Low/High are set to Disable, Symbol Rate=3200Hz is not selected.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>7</td><td>3429 Symbol Rate Mask in V.34 transmission</td><td>Used to set whether 3429Hz is used as Symbol Rate of V.34 or not.
When set to Disable, 3429Hz is not selected. Valid only in transmission.
1: Disable | 0: Enable</td><td>0</td><td>Enable</td><td></td></tr>
<tr><td>8</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td rowspan="3">46</td><td>1</td><td>Primary channel return mode setup</td><td>Used to set the next state after completion of primary channel phase.
1: PPh signal send sequence | 0: Sh signal send sequence</td><td>1</td><td>PPh signal</td><td></td></tr>
<tr><td>2-6</td><td>Not used</td><td></td><td>0
0
0
0
0</td><td></td><td></td></tr>
<tr><td>7,8</td><td>V.8 mode ANSam signal send time</td><td>Used to set ANSam signal send time when sending ANSam signal in V.8 mode.
Bit No. | 7 | 8
3sec | 0 | 0
4sec | 0 | 1
5sec | 1 | 0
6sec | 1 | 1</td><td>0
1</td><td>4sec</td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
47	1-8	Not used		1 0 0 1 0 0 1 1		
48	1-8	Not used		0 1 0 0 0 0 1 0		
49	1-8	Dial number when automatic setup of tone pulse	Used to set the dial number (2 digits) in automatic setup of telephone line kind (DP/DTMF). The set range is 0 - B. If set to outside the range, it is set to the default, 5. Bit No 1 2 3 4 5 6 7 8 0 1 0 1 0 1 0 1 2nd digit 1st digit	0 1 0 1 0 1 0 1	55	
50	1-6	Not used		0 0 0 0 0 0		
	7	Setup of send/receive complete sound (buzzer length)	Used to set the buzzer length from the speaker made after completion of FAX transmission and reception. Excluding when a communication error occurs. 1: 3sec / 0: 1sec	0	1sec	
	8	Not used		0		
51	1	Voice answering send level to the line	Used to set the voice answering volume to the line. Set to Large or Small with the hardware. 1: Small / 0: Large	0	Large	
	2,3	Voice answering send in automatic switch of FAX/TEL <Japan Only>	Used to set whether voice answering is sent before calling an external telephone or after completion of calling an external telephone in automatic switch of FAX/TEL. Bit No. 2 3 Voice signal is not sent. 0 0 After external telephone call, "We are off at present. For facsimile message," 0 1 Before external calling, "Wait for a moment. For facsimile message," 1 0 Before external telephone call, "Wait for a moment." 1 1	1 0	10	
	4-7	Not used		0 0 0 0		
	8	Line monitor range	Used to set the line monitor range when the line monitor function is used. When set to "Until NSF signal send/receive," monitoring is made until DCS or NSF signal is received. When set to "All," all are monitored until the line is disconnected. 1: All / 0: Until sending/receiving NSF signal	0	Until NSF signal send/receive	

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="4">52</td><td>1,2</td><td>Ringing sound volume</td><td>Used to set the ringing sound volume in reception regardless of handset installation.
The sound volume is available in the following four levels.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>Sound NO</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Medium</td><td>Initial setup</td></tr>
<tr><td>3,4</td><td>Line monitor sound volume setup</td><td>Used to set the speaker volume in line monitoring.
The volume is available in the following 4 levels.
<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>Sound NO</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Medium</td><td>Initial setup</td></tr>
<tr><td>5,6</td><td>Speaker volume when on-hook (Speaker volume when DTMF sending)</td><td>Used to set the speaker volume when the on-hook button is pressed.
The volume is available in the following 3 kinds.
<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>Medium</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Medium</td><td>Initial setup</td></tr>
<tr><td>7,8</td><td>Handset volume</td><td>Used to set the reception volume of optional handset.
The volume is available in the following 3 kinds.
<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Medium</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Medium</td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>53</td><td>1,2</td><td>Transmission end sound volume</td><td>Used to set the volume of transmission end sound from the speaker when FAX transmission is completed. The sound volume is available in the following 4 kinds.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>Sound NO</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>Sound NO</td><td></td></tr>
<tr><td></td><td>3,4</td><td>Reception end sound volume</td><td>Used to set the volume of the FAX reception end sound from the speaker.
The volume is available in the following 4 levels.
However, "Medium" cannot be selected with the key operation.
<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>Sound NO</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>0
1</td><td>Small</td><td>Operation setup</td></tr>
<tr><td></td><td>5,6</td><td>Communication error end sound volume</td><td>Used to set the volume of end sound from the speaker when a Fax communication is failed. The sound volume is available in the following 4 kinds.
However, "Medium" cannot be selected with the key operation.
<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>Sound NO</td><td>0</td><td>0</td></tr><tr><td>Small</td><td>0</td><td>1</td></tr><tr><td>Medium</td><td>1</td><td>0</td></tr><tr><td>Large</td><td>1</td><td>1</td></tr></table></td><td>0
1</td><td>Small</td><td>Operation setup</td></tr>
<tr><td></td><td>7,8</td><td>Ringing sound volume "Large" setup</td><td>Used to set the sound level of "Large" ringing sound (key operation setup) from the speaker. Including volume of Buzzer sounds (communication end sound, communication error sound).
<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Sound volume4</td><td>0</td><td>0</td></tr><tr><td>Sound volume5</td><td>0</td><td>1</td></tr><tr><td>Sound volume6</td><td>1</td><td>0</td></tr><tr><td>Sound volume7</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 6</td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>54</td><td>1,2</td><td>Ringing sound volume "Medium" setup</td><td>Used to set the sound level of "Medium" ringing sound (key operation setup) from the speaker. Including volume of Buzzer sounds (communication end sound, communication error sound).<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>Sound volume2</td><td>0</td><td>0</td></tr><tr><td>Sound volume3</td><td>0</td><td>1</td></tr><tr><td>Sound volume4</td><td>1</td><td>0</td></tr><tr><td>Sound volume5</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 4</td><td></td></tr>
<tr><td></td><td>3,4</td><td>Ringing sound volume "Small" setup</td><td>Used to set the sound level of "Small" ringing sound (key operation setup) from the speaker. Including volume of Buzzer sounds (communication end sound, communication error sound).<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>Sound volume0 (Sound NO)</td><td>0</td><td>0</td></tr><tr><td>Sound volume1</td><td>0</td><td>1</td></tr><tr><td>Sound volume2</td><td>1</td><td>0</td></tr><tr><td>Sound volume3</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 2</td><td></td></tr>
<tr><td></td><td>5,6</td><td>Line monitor sound volume "Large" setup</td><td>Used to set the sound level of "Large" line monitor sound (key operation setup) from the speaker.<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>Sound volume4</td><td>0</td><td>0</td></tr><tr><td>Sound volume5</td><td>0</td><td>1</td></tr><tr><td>Sound volume6</td><td>1</td><td>0</td></tr><tr><td>Sound volume7</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 6</td><td></td></tr>
<tr><td></td><td>7,8</td><td>Line monitor sound volume "Medium" setup</td><td>Used to set the sound level of "Medium" line monitor sound (key operation setup) from the speaker.<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Sound volume2</td><td>0</td><td>0</td></tr><tr><td>Sound volume3</td><td>0</td><td>1</td></tr><tr><td>Sound volume4</td><td>1</td><td>0</td></tr><tr><td>Sound volume5</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 4</td><td></td></tr>
<tr><td>55</td><td>1,2</td><td>Line monitor sound volume "Small" setup</td><td>Used to set the sound level of "Small" line monitor sound (key operation setup) from the speaker.<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>Sound volume0 (Sound NO)</td><td>0</td><td>0</td></tr><tr><td>Sound volume1</td><td>0</td><td>1</td></tr><tr><td>Sound volume2</td><td>1</td><td>0</td></tr><tr><td>Sound volume3</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 2</td><td></td></tr>
<tr><td></td><td>3,4</td><td>On-hook speaker sound volume "Large" setup</td><td>Used to set the level of "Large" sound volume from the speaker when on-hook.<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>Sound volume4</td><td>0</td><td>0</td></tr><tr><td>Sound volume5</td><td>0</td><td>1</td></tr><tr><td>Sound volume6</td><td>1</td><td>0</td></tr><tr><td>Sound volume7</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 6</td><td></td></tr>
<tr><td></td><td>5,6</td><td>On-hook speaker sound volume "Medium" setup</td><td>Used to set the level of "Medium" sound volume from the speaker when on-hook.<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>Sound volume2</td><td>0</td><td>0</td></tr><tr><td>Sound volume3</td><td>0</td><td>1</td></tr><tr><td>Sound volume4</td><td>1</td><td>0</td></tr><tr><td>Sound volume5</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 4</td><td></td></tr>
<tr><td></td><td>7,8</td><td>On-hook speaker sound volume "Small" setup</td><td>Used to set the level of "Small" sound volume from the speaker when on-hook.<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Sound volume0 (Sound NO)</td><td>0</td><td>0</td></tr><tr><td>Sound volume1</td><td>0</td><td>1</td></tr><tr><td>Sound volume2</td><td>1</td><td>0</td></tr><tr><td>Sound volume3</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>Sound volume 2</td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
56	1-7	Not used		0 1 0 0 0 0 0		
	8	Resend when no response from the other party	Used to set whether recall is made by judging no response of the other party as an error in transmission. No response of the other party is caused when dial is completed and the other party is a telephone. 1: Not recall / 0: Recall	0	Recall	
57	1-4	Recall interval in communication error or line busy	Used to set recall interval when a communication error occurs or the line is busy. The set range is 0 - 15min in the increment of 1min by binary input. When 0 is selected, it is set to "3min."	0 0 1 1	3min	Send setup
	5-8	Number of times of recall in communication error	Used to set the number of times of recall when a communication error occurs in transmission. The set range is 0 - 15 times by binary input. When 0 is selected, it is set to the default (once).The limitation of the set range depends on the destination. North America, Australia : Once only U.K., Germany, France: 1 ~ 5	0 0 0 1	Once	Send setup
58	1-4	Number of times of recall in busy	Used to set the number of times of recall when the other party's line is busy or the other party does not receive. The set range is 1 - 15 times of 1min by binary input. When 0 is selected, it is set to the default (2 times). North America : 1 ~ 14, Australia ,U.K., Germany, France : 1 ~ 9	0 0 1 0	2times	Send setup
	5-8	Not used		0 0 0 0		
59	1	Setup of reference of the number of times of recall in an error	Used to select the reference of the number of times of recall to an error or to line busy when a communication error occurs in transmission. 1: Refer to the number of times of recall (SW57-5-8) in an communication error. / 0: Refer to the number of times of recall (SW58-1-4) in busy.	1	Error	Send setup
	2	Recall allow in busy	Used to set whether recall is made or not when the other party is busy or does not receive in transmission. 1: Recall / 0: Not recall	1	Recall	Send setup
	3	Recall allow in communication error	Used to set whether recall is made or not when a communication error occurs in transmission. 1: Recall / 0: Not recall	1	Recall	Send setup
	4-8	Not used		0 0 0 0 0		
60	1-8	Interval from the completion of communication to the next call	Used to set the interval from the completion of communication to the next call. The set range is 1 - 255sec by binary input. When 0 is selected, it is set to the default (10sec).	0 0 0 0 1 0 1 0	10sec	
61	1-8	Not used		0 0 0 0 1 0 0 0		

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="8">62</td><td rowspan="2">1,2</td><td rowspan="2">Dial call wait time</td><td rowspan="2">Used to set the wait time for dial call after connection of the line in automatic dial call.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>3.5sec</td><td>0</td><td>0</td></tr><tr><td>4sec</td><td>0</td><td>1</td></tr><tr><td>5sec</td><td>1</td><td>0</td></tr><tr><td>6sec</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td rowspan="2">3.5sec</td><td rowspan="2"></td></tr>
<tr><td rowspan="2">3,4</td><td rowspan="2">Not used</td></tr>
<tr><td>0
0</td></tr>
<tr><td rowspan="2">5,6</td><td rowspan="2">Tone/Pulse default setup (Dial call signal setup)</td><td rowspan="2">Used to set the dial kind.
<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>10PPS</td><td>0</td><td>0</td></tr><tr><td>20PPS</td><td>0</td><td>1</td></tr><tr><td>TONE</td><td>1</td><td>0</td></tr><tr><td>TONE</td><td>1</td><td>1</td></tr></table>When 1 is selected, it is set to TONE.</td><td>1
0</td><td rowspan="2">TONE</td><td rowspan="2">Initial setup</td></tr>
<tr><td rowspan="2">7,8</td><td rowspan="2">Not used</td></tr>
<tr><td>0
0</td></tr>
<tr><td rowspan="2">63</td><td rowspan="2">1-4</td><td rowspan="2">Make time (10PPS) setup</td><td rowspan="2">Used to set the make time when dialing at 10PPS.
The set range is 0 - 15 by binary input of N into "N + 29ms" (29ms - 44ms).</td><td>1
0
1
1</td><td rowspan="2">40ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">5-8</td><td rowspan="2">Break time (10PPS) setup</td></tr>
<tr><td>0
1
0
0</td><td rowspan="2">60ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">64</td><td rowspan="2">1-4</td><td rowspan="2">Minimum pause time (10PPS) setup</td><td rowspan="2">Used to set the minimum pause time when dialing at 10PPS.
The set range is 0 - 15 by binary input of N into "10ms + 800ms" (800 - 950ms).</td><td>0
0
0
0</td><td rowspan="2">800ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">5-8</td><td rowspan="2">Minimum pause time (20PPS) setup</td></tr>
<tr><td>0
0
0
0</td><td rowspan="2">460ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">65</td><td rowspan="2">1-4</td><td rowspan="2">Make time (20PPS) setup</td><td rowspan="2">Used to set the make time when dialing at 20PPS.
The set range is 0 - 15 by binary input of N into "N + 9ms" (9 - 24ms).</td><td>1
0
0
0</td><td rowspan="2">17ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">5-8</td><td rowspan="2">Break time (20PPS) setup</td></tr>
<tr><td>1
0
0
0</td><td rowspan="2">33ms</td><td rowspan="2">Adjustment value</td></tr>
<tr><td rowspan="2">66</td><td rowspan="2">1-4</td><td rowspan="2">Not used</td><td rowspan="2"></td><td>0
0
0
0</td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td rowspan="2">5-8</td><td rowspan="2">DTMF send level (high group) setup</td><td rowspan="2">Used to set the DTFM signal send level of high group and low group in the unit of 1dB.</td><td rowspan="2">0
0
1
1</td><td rowspan="2">3dBm</td><td rowspan="2">Adjustment value</td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td rowspan="5">67</td><td rowspan="5">1-4</td><td rowspan="5">DTMF send level (High group-Low group) setup</td><td rowspan="5">Used to set the difference between the high level and the lower level of DTFM signal in the unit of 0.5dB.
<table><tr><th>Bit No.</th><th>1</th><th>2</th><th>3</th><th>4</th><th>Bit No.</th><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>2.0dB</td><td>0</td><td>0</td><td>0</td><td>0</td><td>-2.0dB</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2.5dB</td><td>0</td><td>0</td><td>0</td><td>1</td><td>-1.5dB</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>3.0dB</td><td>0</td><td>0</td><td>1</td><td>0</td><td>-1.0dB</td><td>1</td><td>0</td><td>1</td><td>0</td></tr><tr><td>3.5dB</td><td>0</td><td>0</td><td>1</td><td>1</td><td>-0.5dB</td><td>1</td><td>0</td><td>1</td><td>1</td></tr><tr><td>4.0dB</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0dB</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>4.5dB</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0.5dB</td><td>1</td><td>1</td><td>0</td><td>1</td></tr><tr><td>5.0dB</td><td>0</td><td>1</td><td>1</td><td>0</td><td>1.0dB</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>5.5dB</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1.5dB</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table></td><td>0
0
0
0</td><td rowspan="5">2dB</td><td rowspan="5">Adjustment value</td></tr>
<tr><td>5-8</td><td>Not used</td><td>0
0
0
0</td></tr>
<tr><td rowspan="5">68</td><td rowspan="5">1-5</td><td rowspan="5">DTMF signal send time</td><td rowspan="5">Used to set the DTFM signal send time when DTFM signal is transmitted.
The set range is 0 - 31 by binary input of N into "10ms x N" (70ms - 310ms).
If set to outside the set range, it is set to the default (110ms).</td><td>0
1
0
1
1</td><td rowspan="5">110ms</td><td rowspan="5"></td></tr>
<tr><td>6</td><td>Not used</td><td>0</td></tr>
<tr><td>7,8</td><td>1300Hz detection time</td><td>Used to set the judgment time for detection of a signal (1300Hz) sent from the switch board (NTT) when making contract of F net.
When this item is not set, 1300Hz signal is ignored and not detected.
<table><tr><th>Bit No.</th><th>7</th><th>8</th></tr><tr><td>Setup NO</td><td>0</td><td>0</td></tr><tr><td>2.5sec</td><td>0</td><td>1</td></tr><tr><td>3sec</td><td>1</td><td>0</td></tr><tr><td>Setup NO</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>NO</td><td></td></tr>
<tr><td rowspan="3">69</td><td rowspan="3">1-8</td><td rowspan="3">DTMF minimum pause time setup</td><td rowspan="3">Used to set the minimum pause time between DTMF signals when DTFM signal is transmitted. The set range is 0 - 31 by binary input of N into "10ms x N" (70ms - 310ms).
If set to outside the set range, it is set to the default (110ms).</td><td>0
1
1
1
1
0
0
0</td><td rowspan="3">110ms</td><td rowspan="3">Adjustment value</td></tr>
<tr><td>70</td><td>1-4</td><td>Pause time setup (between dialing)</td><td>Used to set the pause time of every pause input in dialing. The set range is 0 - 15 by binary input of N into "1sec x N" (1sec - 15sec). When 0 is selected, it is set to the default (2sec).</td><td>0
0
1
0</td><td>2sec</td><td>Initial setup</td></tr>
<tr><td rowspan="4"></td><td>5</td><td>Detection of line current when dialing</td><td>Used to set whether dialing is made or not after detection of the line current when connecting the line in automatic dialing.
When it is set to YES and the line current is not detected, dialing is not made.
<table><tr><td>1: NO</td><td>0: YES</td></tr></table></td><td>1</td><td>NO</td><td></td></tr>
<tr><td>6</td><td>Dial tone detection</td><td>Used to set whether the dial tone is detected or not in automatic dialing.
When it is set to YES and the dial tone is not detected, dialing is not made.
<table><tr><td>1: YES</td><td>0: NO</td></tr></table></td><td>1</td><td>YES</td><td></td></tr>
<tr><td>7</td><td>Dial tone monitoring time</td><td>Used to set the judgment time for detection of dial tone.
<table><tr><td>1: 17sec</td><td>0: 5sec</td></tr></table></td><td>0</td><td>5sec</td><td></td></tr>
<tr><td>8</td><td>FAX calling CNG detection</td><td>Used to set whether CNG from the other party is detected or not when FAX calling.
When it is set to YES and CNG is detected, the line is judged as busy.
<table><tr><td>1: CNG detection YES</td><td>0: CNG detection NO</td></tr></table></td><td>0</td><td>Not detected</td><td></td></tr>
</table>

SW No.	Bit No.	Item	Switch selection and function		Initial value	Key operator
71	1,2	Not used		0 0		
	3	Busy tone detection	Used to set whether the busy tone signal is detected or not during automatic dialing or ringing of pseudo-call of an external telephone. 1: Busy tone is not detected. / 0: Busy tone is detected.	0	Detected	
	4,5	Busy tone detection cycle	Used to set the number of pulses for judgment of busy tone signal detection. Bit No. 4 5 2Pulse 0 0 4Pulse 0 1 6Pulse 1 0 10Pulse 1 1	0 0	2 pulses	
	6,7	DT/BT detection level	Used to set the minimum detection level for judgment of dial tone and busy tone detection. If a signal level is lower than this setup, it is ignored. Bit No. 6 7 -43dB 0 0 -35dB 0 1 -33dB 1 0 -30dB 1 1	0 0	-43dB	
	8	SDT signal detection	Used to set whether SDT signal which is the second dial tone when transmitting to F net is detected or not. When SDT signal is not detected, normal dialing is performed after dialing of "16X." 1: Detected / 0: Not detected	0	Not detected	
72	1,2	Lower limit of busy tone detection time	Used to set the lower limit of detection time of busy tone signal frequency. To count a busy tone signal as 1 pulse, it must be detected for more than the set time. Bit No. 1 2 250ms 0 0 150ms 0 1 250ms 1 0 350ms 1 1	0 0	250ms	
	3	Upper limit of busy tone detection time	Used to set the upper limit of detection time of busy tone signal frequency. To count a busy tone signal as 1 pulse, it must be detected for less than the set time. 1:650ms / 0:750ms	0	750ms	
	4,5	Frequency range setup for detection of DT/BT	Used to set the frequency setup for detection of dial tone and busy tone. The frequency range differs depending on the destination. Bit No. 4 5 Modem fixed (Japan) 0 0 420Hz - 680Hz 0 1 360Hz - 440Hz(Australia) 1 0 245Hz - 650Hz(North America, U.K., Germany, France) 1 1	1 1	11	
	6-8	Not used		0 0 0		
73	1-8	Not used		0 1 0 1 0 1 1 0		

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>74</td><td>1-8</td><td>Not used</td><td></td><td>0
0
0
0
1
1
0
1</td><td></td><td></td></tr>
<tr><td>75</td><td>1-4</td><td>Lower limit of call signal ON time</td><td>Used to set the lower limit of ON time for detection of pulses (number of times) of call signal (CI). When CI signal ON is detected for more than the set time, it is counted as 1 pulse.
The lower limit of ON time can be set in the range of 150 - 300ms by binary input of N (0 - 15) into "N x 10 + 150ms."
This switch substitutes for the sine wave of CI detection.</td><td>0
0
0
0</td><td>150ms</td><td></td></tr>
<tr><td></td><td>4-8</td><td>Upper limit of call signal ON time</td><td>Used to set the upper limit of ON time for detection of pulses (number of times) of call signal (CI). When CI signal ON is detected for less than the set time, it is counted as 1 pulse.
The upper limit of ON time can be set in the range of 3000 - 4500ms by binary input of N (0 - 15) into "N x 100 + 3000ms."</td><td>0
0
0
0</td><td>3000ms</td><td></td></tr>
<tr><td>76</td><td>1-4</td><td>Lower limit of call signal OFF time</td><td>Used to set the lower limit of call signal (CI) OFF time for detection of pulses (number of times). When a CI signal OFF is detected for mote than the set OFF time, it is judged as 1 pulse. The lower limit of OFF time can be set in the range of 0 - 150ms by binary input of N into "N x 100ms."</td><td>0
1
1
1</td><td>700ms</td><td></td></tr>
<tr><td></td><td>5,6</td><td>Upper limit of call signal OFF time</td><td>Used to set the upper limit of wait time from pulse (number of times) detection of a call signal (CI) to the next CI signal pulse. When the next CI signal pulse is not detected within the set range, the number of calls until then is cleared.
<table>
<tr><th>Bit No.</th><th>5</th><th>6</th></tr>
<tr><td>5sec</td><td>0</td><td>0</td></tr>
<tr><td>10sec</td><td>0</td><td>1</td></tr>
<tr><td>15sec</td><td>1</td><td>0</td></tr>
<tr><td>20sec</td><td>1</td><td>1</td></tr>
</table></td><td>0
0</td><td>5sec</td><td></td></tr>
<tr><td></td><td>7,8</td><td>Not used</td><td></td><td>0
0</td><td></td><td></td></tr>
<tr><td>77</td><td>1-4</td><td>Call signal OFF non-detection time</td><td>Used to set the time to ignore OFF signal and regard as ON time continuing after detection of call signal (CI) ON. This is to process PBX call signal (Ring, Ring) as one call signal.
The set range is 0 - 150ms in the increment of 100ms by binary input.</td><td>0
1
1
0</td><td>600ms</td><td></td></tr>
<tr><td></td><td>5-8</td><td>Distinctive ring</td><td>Used to set whether FAX ringing by distinctive ring is made or not. Though a call signal other than the set pattern is detected, automatic ringing is not performed.
This distinctive ring is used only in North America and Australia.
<table>
<tr><th>Bit No.</th><th>5</th><th>6</th><th>7</th><th>8</th></tr>
<tr><td>OFF</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>STANDARD</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Pattern4</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>Pattern2</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>Pattern1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Pattern5</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>Pattern3</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
</table></td><td>0
0
0
0</td><td>OFF</td><td></td></tr>
<tr><td>78</td><td>1-8</td><td>Not used</td><td></td><td>0
0
0
0
0
0
0
0</td><td></td><td></td></tr>
</table>

<table>
<tr><th>SW No.</th><th>Bit No.</th><th>Item</th><th>Switch selection and function</th><th></th><th>Initial value</th><th>Key operator</th></tr>
<tr><td>79</td><td>1,2</td><td>Internet FAX coding system priority selection (Default)</td><td>Used to set the default of internet FAX transmission coding system.
JBIG and MR do not function.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>JBIG</td><td>0</td><td>0</td></tr><tr><td>MMR</td><td>0</td><td>1</td></tr><tr><td>MR</td><td>1</td><td>0</td></tr><tr><td>MH</td><td>1</td><td>1</td></tr></table></td><td>1
1</td><td>MH</td><td></td></tr>
<tr><td></td><td>3</td><td>Internet FAX resolution type</td><td>Used to set the resolution type of internet FAX transmission scanning.
<table><tr><td>1:mm series</td><td>0:inch series</td></tr></table></td><td>0</td><td>iInch series</td><td></td></tr>
<tr><td></td><td>4</td><td>F code relay box email setup
<North America Only></td><td>Used to set whether the email address can be set as a receiver of F code relay box broadcast.
<table><tr><td>1: Enable (Setup allowed)</td><td>0: Disable (Setup inhibited)</td></tr></table></td><td>1</td><td>Setup inhibited</td><td></td></tr>
<tr><td></td><td>5,6</td><td>Internet FAX file format priority selection (Default)</td><td>Used to set the default of internet FAX transmission file format.
<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>PDF</td><td>0</td><td>0</td></tr><tr><td>TIFF</td><td>0</td><td>1</td></tr><tr><td>TIFF-F</td><td>1</td><td>0</td></tr><tr><td>TIFF-F</td><td>1</td><td>1</td></tr></table></td><td>1
0</td><td>TIFF-F</td><td></td></tr>
<tr><td></td><td>7</td><td>Content-X-CIAJWNETFAX field addition</td><td>Used to set whether "Content-X-CIAJWNETFAX" is added to the mail field in iFAX transmission.
By adding this field, printing of the mail message is inhibited on the iFAX reception side.
(However, the iFAX reception side requires the countermeasure against this field.)
<table><tr><td>1: IGNORE is added.</td><td>0: Field is not added.</td></tr></table></td><td>0</td><td>Not added</td><td></td></tr>
<tr><td></td><td>8</td><td>Not used</td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>80</td><td>1,2</td><td>"Scan to E-mail" coding system priority selection (Default)</td><td>Used to set the default of "Scan to E-mail" coding system.
<table><tr><th>Bit No.</th><th>1</th><th>2</th></tr><tr><td>NONE</td><td>0</td><td>0</td></tr><tr><td>MMR</td><td>0</td><td>1</td></tr><tr><td>MR</td><td>1</td><td>0</td></tr><tr><td>MH</td><td>1</td><td>1</td></tr></table></td><td>0
1</td><td>MMR</td><td></td></tr>
<tr><td></td><td>3,4</td><td>"Scan to E-mail" file format priority selection (Default)</td><td>Used to set the default of "Scan to E-mail" file format.
<table><tr><th>Bit No.</th><th>3</th><th>4</th></tr><tr><td>PDF</td><td>0</td><td>0</td></tr><tr><td>TIFF</td><td>0</td><td>1</td></tr><tr><td>TIFF-F</td><td>1</td><td>0</td></tr><tr><td>PDF</td><td>1</td><td>1</td></tr></table></td><td>0
0</td><td>PDF</td><td></td></tr>
<tr><td></td><td>5,6</td><td>File compression format in broadcast (Including other party of "Scan to Email")</td><td>Used to set the file compression format in broadcast including other parties of "Scan to Email."
MR does not function.
<table><tr><th>Bit No.</th><th>5</th><th>6</th></tr><tr><td>MH</td><td>0</td><td>0</td></tr><tr><td>MR</td><td>0</td><td>1</td></tr><tr><td>MMR</td><td>1</td><td>0</td></tr><tr><td>MH</td><td>1</td><td>1</td></tr></table></td><td>1
1</td><td>MH</td><td></td></tr>
<tr><td></td><td>7,8</td><td>Not used</td><td></td><td>0
0</td><td></td><td></td></tr>
</table>

[7] MACHINE OPERATION

1. Key operator program

KEY OPERATOR PROGRAM			Set value(Default) Engine section LCD	Remark
Operation settings	Default display setting		Condition setting screen*/ Address directory (ABC)/ Address directory (Group)	
	The number of direct address keys displayed setting		6/8*/12	
	Must input next address key at broadcast setting		omit*/not omit	
	Initial resolution setting		standard*/fine/fine(half tone)/super fine/ super fine(half tone)/ultra fine/ ultra fine(half tone)	
	Default verification stamp *1		Enable/Disable*	
Fax default settings	Own number and name set			
	Dial mode setting		tone*/10PPS/20PPS	
	Auto wake up print		Enable*/ Disable	
	Pause time setting		1,2* ~ 15sec	
	Speaker volume setting	Speaker	Low/Medium*/High	
		Ringer volume	Low/Medium*/High /Off	
		Line monitor	Low/Medium*/High /Off	
	Original print on send error report		Enable*/ Disable	
	Remote reception number setting		00 ~ 55* ~ 99	
	Transaction report print select setting	Single sending	Print out all report/Print out error report only*/ No printed report	
		Broadcasting	Print out all report*/Print out error report only/ No printed report	
		Receiving	Print out all report/Print out error report only/ No printed report*	
		Confidential reception	Print out notice page*/Not print out notice page	
	Activity report print select setting	Auto print at memory full	Yes/No*	
		Print daily at designated time	Yes/No*	
	ECM*2		Enable/ Disable*	
	Distinctive ring detection		Enable/ Disable*	
Fax send settings	Auto reduction sending setting		Enable*/ Disable	
	Rotation sending setting		Enable*/ Disable	
	Printing page number at receiver		Enable*/ Disable	
	Call timer at memory sending		20/45*/60sec	
	Date/own number print position setting		Outside the original image*/Inside the original image	
	Recall in case of line busy		Enable*/ Disable	
	Recall in case of communication error		Enable*/ Disable	
	Times of recall setting in case of line busy		1,2* ~ 15	
	Interval of recall setting		1 ~ 3* ~ 15min	
	Quick on line sending		Enable*/ Disable	
Fax receive settings	Auto receive reduce setting		Enable*/ Disable	
	Number of calls in auto reception		0 ~ 2* ~ 15	
	Duplex reception setting*3		Enable/ Disable*	
	Print style setting		Print actual size cut off disable/ Print actual size cut off enable/Auto size select*	
	Set the telephone number for data forwarding			
	Fax separator page		Enable*/ Disable	
	Output tray setting*4			
Fax polling security	Polling security setting		Allowed/Not allowed*	
	Passcode number setting			
	Set number of times public box may be polled		Automatically clear*/Not clear	

*1 Can only be selected if the optional verification stamp unit is installed.

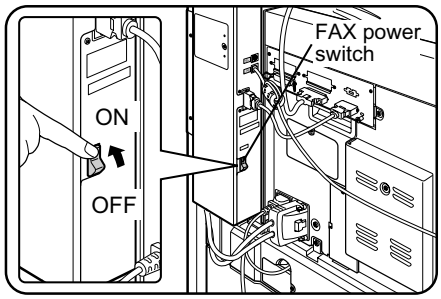
*2 This setting is only effective if the other machine is a G3 machine that supports ECM.

*3 Only when the duplex module is installed.

*4 The trays that can be selected will vary depending on what peripheral devices have been installed.

2. FAX power switch

For the facsimile features to function, the power switch located on the expansion kit box must be turned on.



3. Originals that can be faxed

A. Original sizes

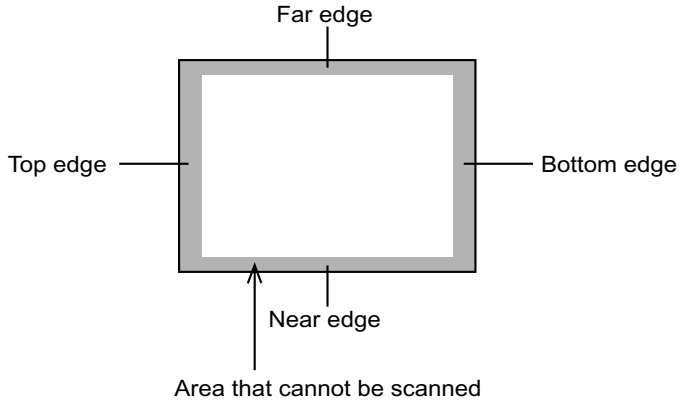
	Minimum original size	Maximum original size
Using the auto document feeder	8-1/2" (width) x 5 -1/2" (length)	11" (width) x 31-1/2"*(length) *Long documents can be loaded
Using the document glass	5-1/2" (width) x 8-1/2" (length)	11" (width) x 17"(length)

NOTE: Originals that are not a standard size (5-1/2"x8-1/2", 8-1/2"x11", 8-1/2"x11"R, 8-1/2"x14", 11"x17") can also be faxed.

B. Scanning area of original

Note that the edges of an original cannot be scanned.

Area that cannot be scanned : 0.2" or less at top edge and 0.2" or less at bottom edge
: Near edge + far edge = 0.2" or less



C. Automatic reduction of faxed document

If the size (width) of the faxed document is greater than the receiving machine's paper size, the size will be automatically reduced.

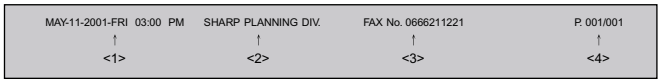
Faxed document width	Receiving machine's paper width	Reduced size	Ratio
11"x17"	8-1/2"x14"	8-1/2"x14"	1 : 0.64 (Area ratio)
11"x17"	8-1/2"x11"	8-1/2"x11"R	1 : 0.5 (Area ratio)
8-1/2"x14"	8-1/2"x11"	8-1/2"x11"R	1 : 0.78 (Area ratio)

A document can also be faxed without reducing its size. In this case, the left and right edges will not be transmitted.

4. Own number sending

This function prints the date, time, your programmed name, your programmed fax number, and the transmitted page number at the top center of each page that you fax. All pages that you fax include this information.

Example of fax page printed out by the receiving machine

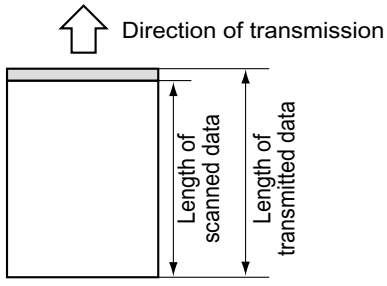


<1> Date and time : programmed in the custom settings.
<2> Own name : programmed with the key operator program.
<3> Own fax number : programmed with the key operator program.
<4> Transmitted page number : 3-digit number appearing in the format, "page number/total pages"
(only the page number appears if you use manual transmission or Quick On-Line transmission).
If desired, you can use the key operator program to omit the page number.

A. Position of sender's information

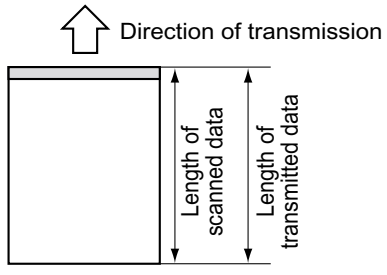
The key operator program can be used to select whether the sender's information is added outside the original data or inside the data. The initial factory setting is outside the data.

(1) Outside scanned data



None of the transmitted image is cut off; however, the transmitted data is longer than the scanned data, and thus when both the sender and the receiver use the same size of paper, the printed fax may either be reduced or split up and printed on two pages.

(2) Inside scanned data



The top edge of the scanned data will be cut off by the sender's information; however, when both the sender and the receiver use the same size of paper, the printed fax will neither be reduced nor split up and printed on two pages.

* May vary depending on the setup on the receiver side.

5. Quick On-line

When you use the auto document feeder to send a multi-page document and there are no previously stored jobs waiting or in progress (and the line is not being used), the machine dials the destination after the first page is scanned and begins transmitting scanned pages while the remaining pages are being scanned. This transmission method is called Quick On-line. The messages SCANNING ORIGINAL and SENDING both appear until scanning of the final page is completed.
If the receiving party is busy, the transmission will switch to a memory transmission.

NOTE :
- The machine is initially set (factory setting) to perform Quick On-line transmission. If desired, you can turn off this function with the key operator program.
- When a document is transmitted using the following methods, the job will be stored in memory (Quick On-line transmission will not be performed):

<1>Sending from the document glass
<2>Broadcast transmission
<3>Timer transmission
<4>F-code transmission

6. Communication report codes

This code is indicated in the column of protocol communication report in a communication repot table and a communication management table when communication is terminated.

Communication report XX (YY ZZ)
↑ ↑ ↑
〈1〉 〈2〉 〈3〉

<1>Communication report code XX (Top 2 digits): 00 ~ 99
<2>Communication report sub code 1: YY: Not used in this machine. (Always 00)
<3>Communication report sub code 2: ZZ: Indicates details of the report.

A. Communication report code list 1

Means of communication: S = Send, R = Receive, P = Polling, B = Bulletin board

Report code (Communication result)	Display in the column of result	Content of communication interruption	Means of communication
0 ~ 31	Refer to the following descriptions.	Depends on the point of communication interruption. For 16 or later, V.34 mode communication.	
33	BUSY	The calling side cannot establish connection with the remote party.	
34	CANCEL	A communication interruption command is made during sending/receiving.The interruption key is pressed for interruption of input.	<S/R/P/B>
35	P. FAIL	Power is failed during sending/receiving.	<S/R/P/B>
36	(No record paper)		
37	(Record paper jam)		
38	MEM. FULL	Memory over during reception.Print is not made during reception in acting reception inhibit.	<R/P><R/P>
39	(Number of paper unmatched)		
40	(Relay not received)		
41	LENGTH OVER	The send data length of one page exceeds the limit (3m) in sending.	<S/B>
42	LENGTH OVER	The receive data length of one page exceeds the limit.	<R/P>
43	(Communication) (OK)	Speaking before data transmission	
44	ORIGINAL ERROR	A document jam occurs in direct sending.	<S>
45	(Picture quality error)		
46	NO RESPONSE	The FAX signal from the remote party is not detected within T1 time.	<S/P>
47	TX DECODE ERROR	A decode error occurs in the FAX board.	<S/B>
48	OK	Normal end of communication	Normal end of communication
49	NO RX POLL	The called side does not have polling function in polling reception. The calling side has no data to send.	<P><P>
50	RX POLL FAIL	In polling reception, DCN is received for DTC.In polling sending, there is no send data.	<P><B>
51	PASS # NG	In poling sending, the allow number is not matched. In polling sending, the system number is not matched.	<B><B>
52	(No confidential function in remote party)	In confidential sending, the remote party does not have confidential function. (Including other company's machines) <1>The NSF signal has not "Confidential function" bit. <2>The NSF is not a Sharp machine.	<S>
53	(Confidential not received)	<1>In confidential sending, DCN is received for NSS.	<S>
54	(Confidential BOX NO NG)	<1>In confidential reception, a confidential box number which is not registered is specified.	<R>
55	(No relay function in remote party)	In relay command sending, the remote machine has no relay function. (Including other company's machine) <1>The NSF signal has not "Confidential function" bit. <2>The NSF is not a Sharp machine.	<S>
56	NO REL RX	<1>In relay command sending, DCN is received for NSS. <2>In relay command reception, a remote station number which is not registered is specified. <3>In F code relay broadcasting, an F code relay command is received.	<S><R><R>
57	(Relay ID unmatched)	<1>In relay command reception, the relay ID does not match.	<R>
58	(Receive inhibit number)	In reception, data are sent from a remote machine of receive inhibit number.	
59	RX NO F-CODE POLL	In F code polling (calling), the remote machine has no DIS bit 47 (polling function).	<P>
60	NO F-CODE POLL	In F code polling (calling), DCN is received for SEP. In bulletin board, there is no send data for SEP.	<P><B>
61	RX POLL # NG	In bulletin board, the sub address (bulletin board number (SEP)) is not matched.	<B>

Report code (Communication result)	Display in the column of result	Content of communication interruption	Means of communication
62	F POLL PASS # NG	In bulleting board, the pass code (PWD) is not matched.	<B>
63	NO F FUNC	In F code sending, the remote machine has no DIS bit 49 (sub address function). Check that the remote machine conforms to F code.	<S>
64	NO F-CODE	In F code sending : <1>DCN is received for SUB. --- Check the box number. <2>DCN is received for SID. --- Check the box number and pass code. In F code receiving : "F code relay broadcasting" or "F code confidential reception" is "Inhibited."	<S><R>
65			
66			
67	F PASS # NG	In F code receiving, the pass code (SID) is not matched.	<R>
68	BOX NO NG	In F code reception, a box number which is not registered is specified. (SUB is not matched.)	<R>
69	MEMORY OVER	Memory over in quick online sending	<S>
70	(JOB MEMORY OVER)	In PC-FAX reservation, the number of remote parties is exceeded.	<S>
71		In PC-FAX reservation, data sent from PC includes some errors.	<S>
80		NIC connect failure (network abnormality)Check for disconnection of cables.	

•When the communication result is OK, the communication result sub code 1 and the communication result sub code 2 are "0000."
•Errors encircled with () are not used in this machine.

B. Communication report code list 2

Report code	Final receive signal (Send side)	Final receive signal (Receive side)	Remark
0	Abnormal signal	Abnormal signal	
1	NSF, DIS	(SID), (SUB), NSS, DCS	
2	CFR	(PWD), (SEP), NSC, DTC	
3	FTT	EOP	
4	MCF	EOM	
5	PIP, PIN	MPS	
6	RTN, RTP	PRI-Q	
7	No signal, DCN	DCN	
8	PPR	PPS-EOP	
9		PPS-EOM	
10		PPS-MPS, PPS-NULL	
11	RNR	RR	
12	CTR	CTC	
13	ERR	EOR-Q	
14		PPS-PRI-Q	
15			
16	Abnormal signal	Abnormal signal	V.34 MODE COMMUNICATION
17	NSF, DIS	SID, SUB, NSS, DCS	V.34 MODE COMMUNICATION
18	CFR	PWD, SEP, NSC, DTC	V.34 MODE COMMUNICATION
19	FTT	PPS-EOP	V.34 MODE COMMUNICATION
20	MCF	PPS-EOM	V.34 MODE COMMUNICATION
21	PIP, PIN	PPS-MPS, PPS-NULL	V.34 MODE COMMUNICATION
22	RTN, RTP	PRI-Q	V.34 MODE COMMUNICATION
23	No signal, DCN	DCN	V.34 MODE COMMUNICATION
24	PPR		V.34 MODE COMMUNICATION
25	RNR	RR	V.34 MODE COMMUNICATION
26	CTR	CTC	V.34 MODE COMMUNICATION
27	ERR	EOR-Q	V.34 MODE COMMUNICATION
28		PPS-PRI-Q	V.34 MODE COMMUNICATION
29	V.8Phase-1	V.8Phase-1	V.34 MODE COMMUNICATION
30	V.8Phase-2	V.8Phase-2	V.34 MODE COMMUNICATION
31	V.8Phase-3	V.8Phase-3	V.34 MODE COMMUNICATION

•For report codes 16 ~ 31, V.34 MODE COMMUNICATION.

C. Communication report sub code

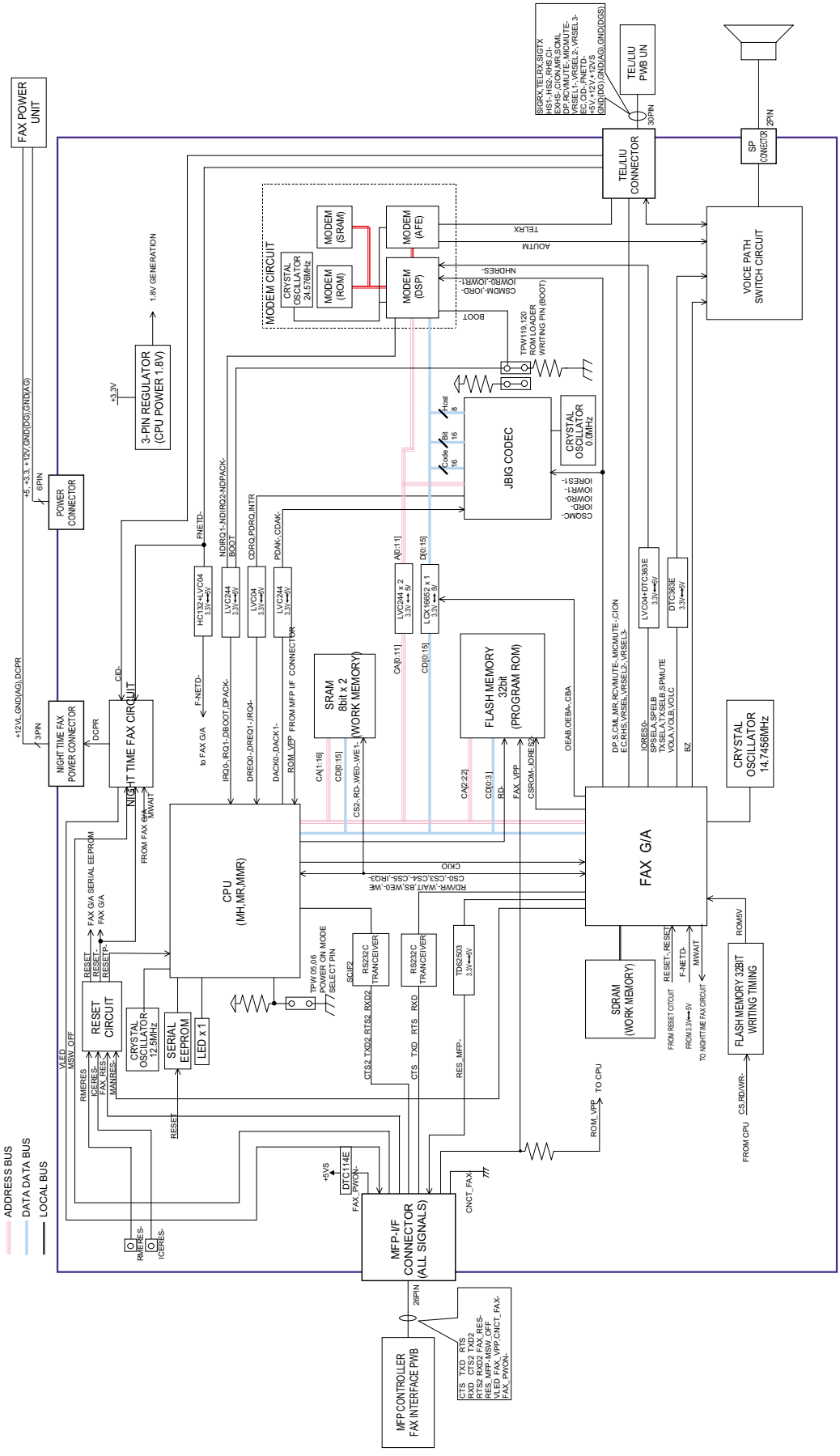
Report code 2	Content of communication interruption	Send/Receive
01	Send length over	Send
02	EOL time up	Receive
03	Carrier detection time up	Receive
04	Not used	-
05	Time up in phase C (8 min)	Send
06	Memory image decode error	Receive
07	Memory image decode error	Send
08	Time up between frames in phase C (Report code is 0 or 16.)	Send/Receive
09	Not used	-
10	Not used	-
11	Polarity reversion detection	Receive
12	Invalid command reception	Receive
13	Time up (1-minute timer/6-second time)	Receive
14	PUT error	Receive
15	In V.34 mode, time up is generated when shifting from Primary to Control.	Receive
16	In V.34 mode, time up is generated when shifting from Control to Primary.	Receive
17	Not used	-
18	Not used	-
19	Not used	-
20	Polarity reversion detection	Send
21	Invalid command reception	Send
22	Fallback retry number over	Send
23	Command retry number resend over	Send
24	Time up (T5 timer)	Send
25	Time up (T5 timer) in V.34 mode	Send
26	In V.34 mode, time up is generated when shifting from Primary to Control.	Send
27	In V.34 mode, time up is generated when shifting from Control to Primary.	Send
28	Modem chip response NG *1	Send/Receive
29	Not used	-
30	A communication error is generated between MFP controller and model controller. (Report code is 0 or 16.)	
31	DC current not detected (busy)	Send
32	Dial tone not detected (busy)	Send
33	Busy tone detection (busy)	Send
34	T0 time up (Remote machine not responding)	Send
35	T1 time up (Remote machine not responding)	Send
36	In dialing, polarity reversion detection (Remote machine not responding)	Send
37	Calling is not made (busy)<Collision detected>	Send

*1: Does not occur in this machine.

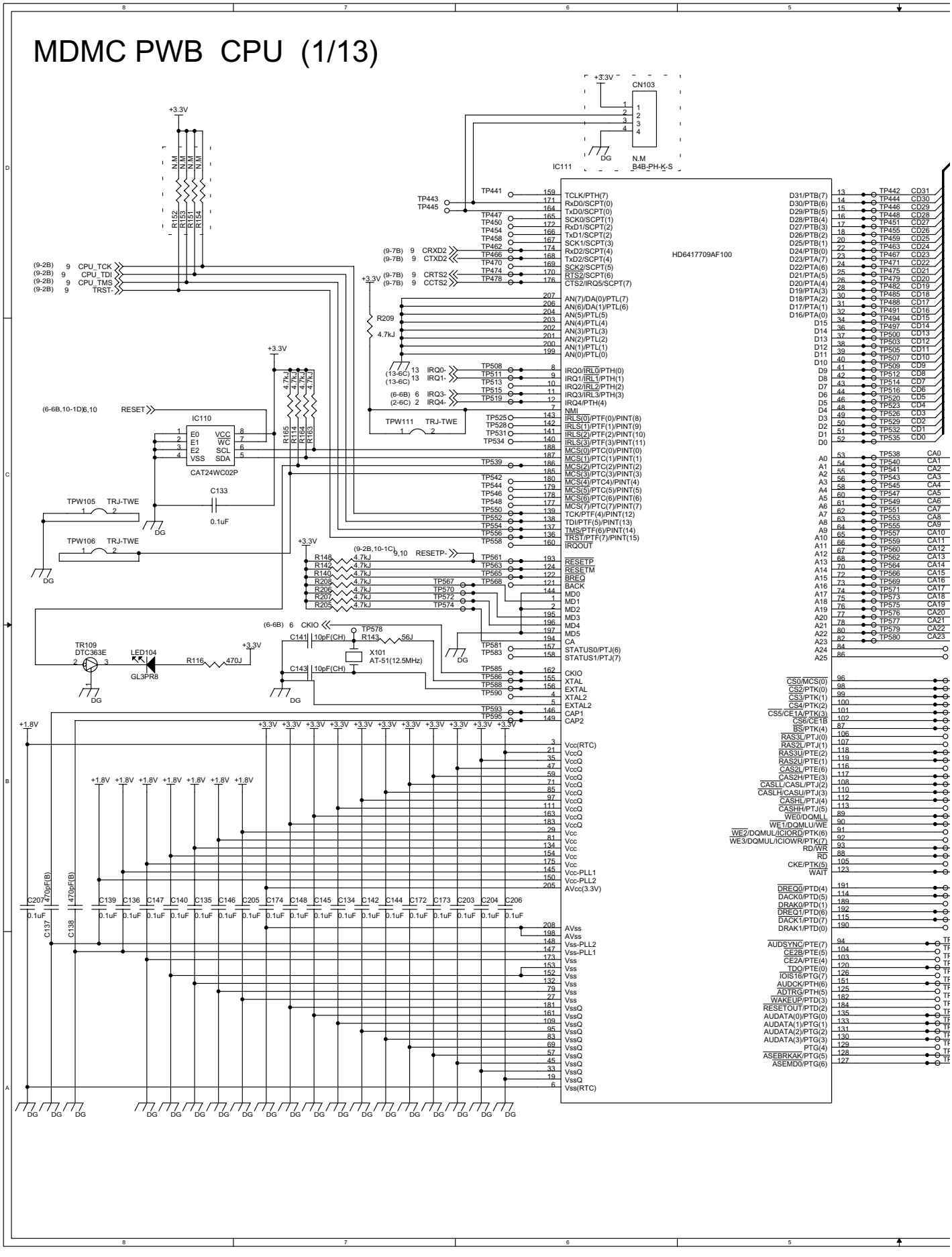
[8] ELECTRICAL SECTION

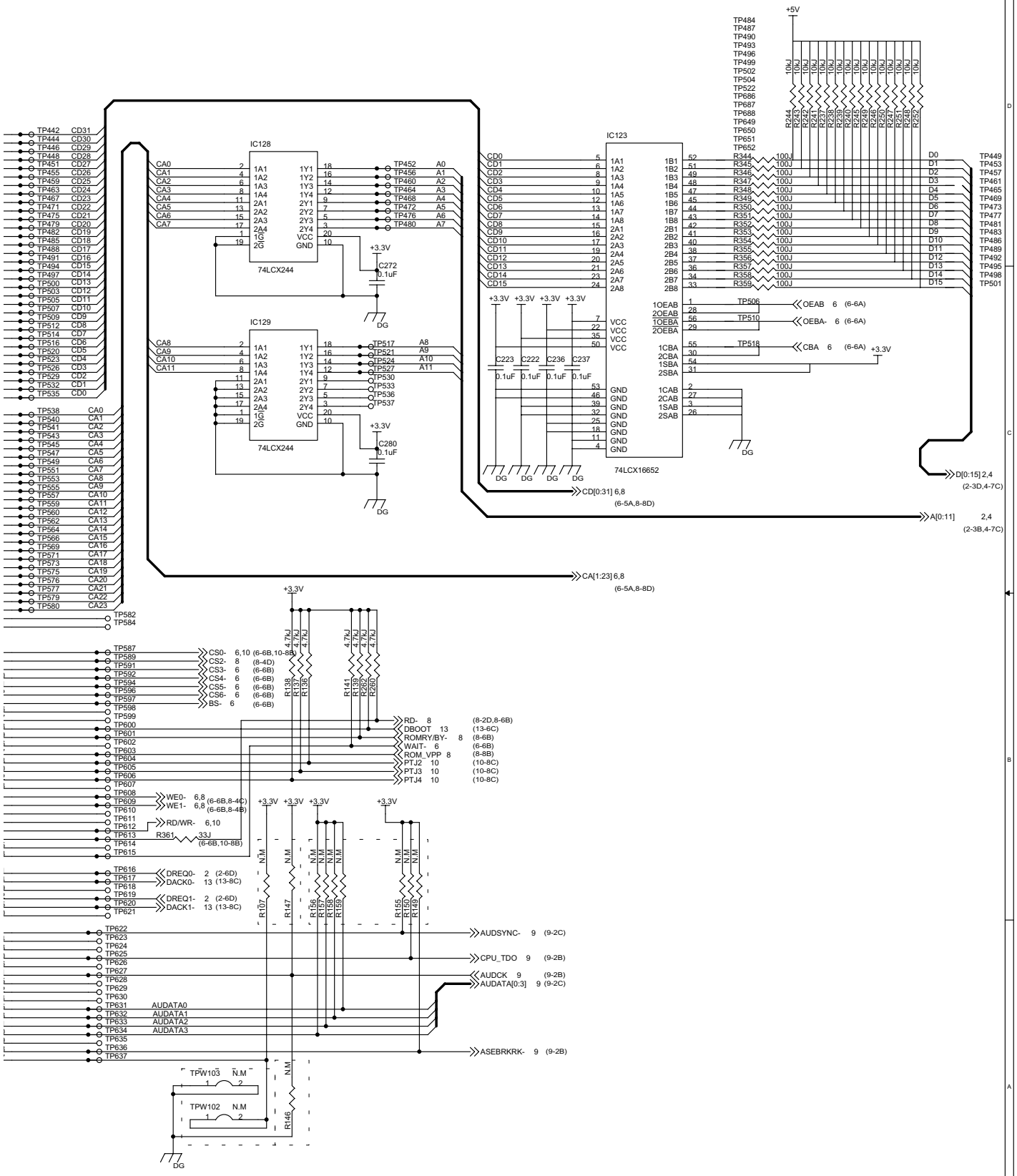
1. MDMC PWB

A. Block Diagram

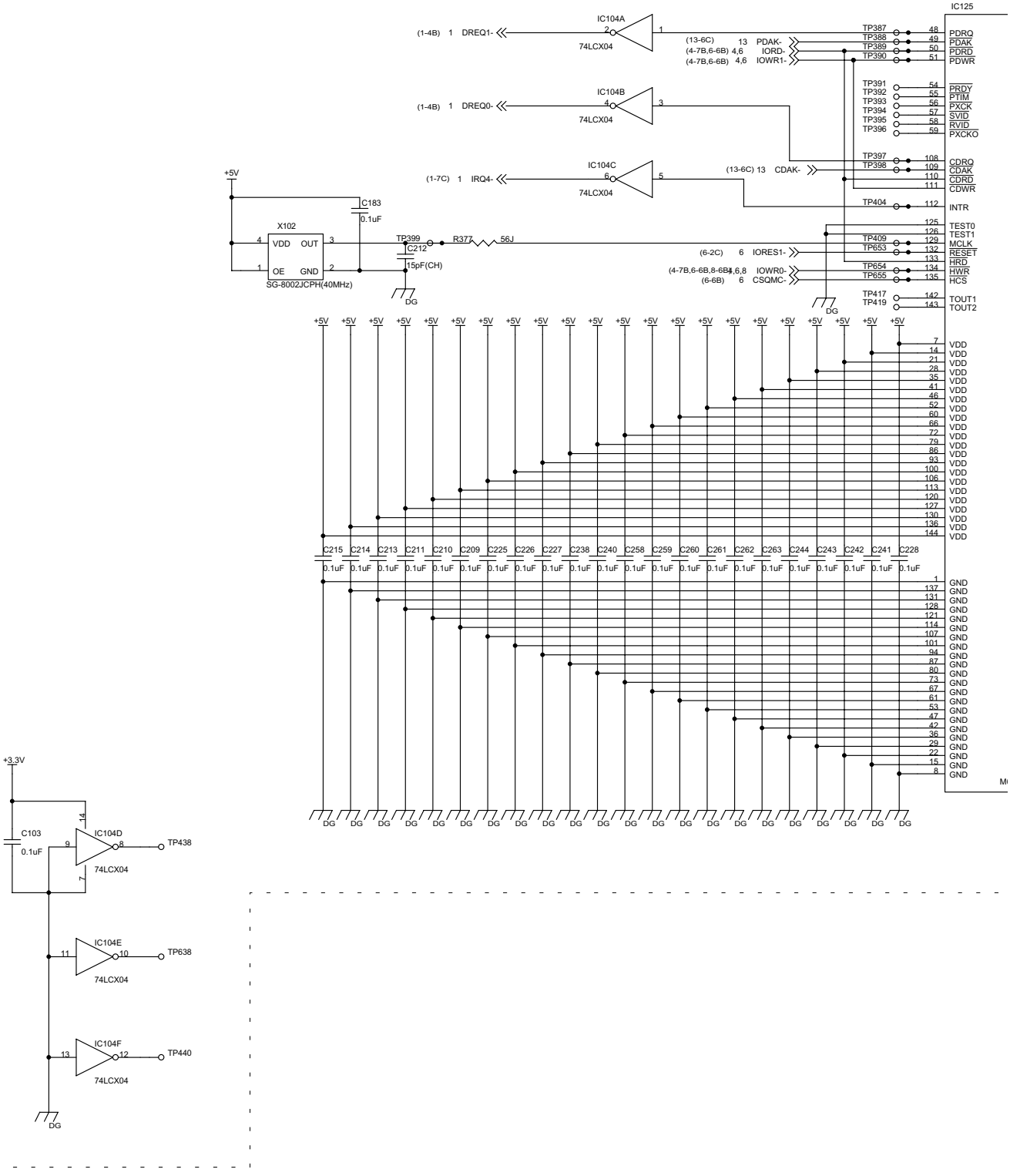


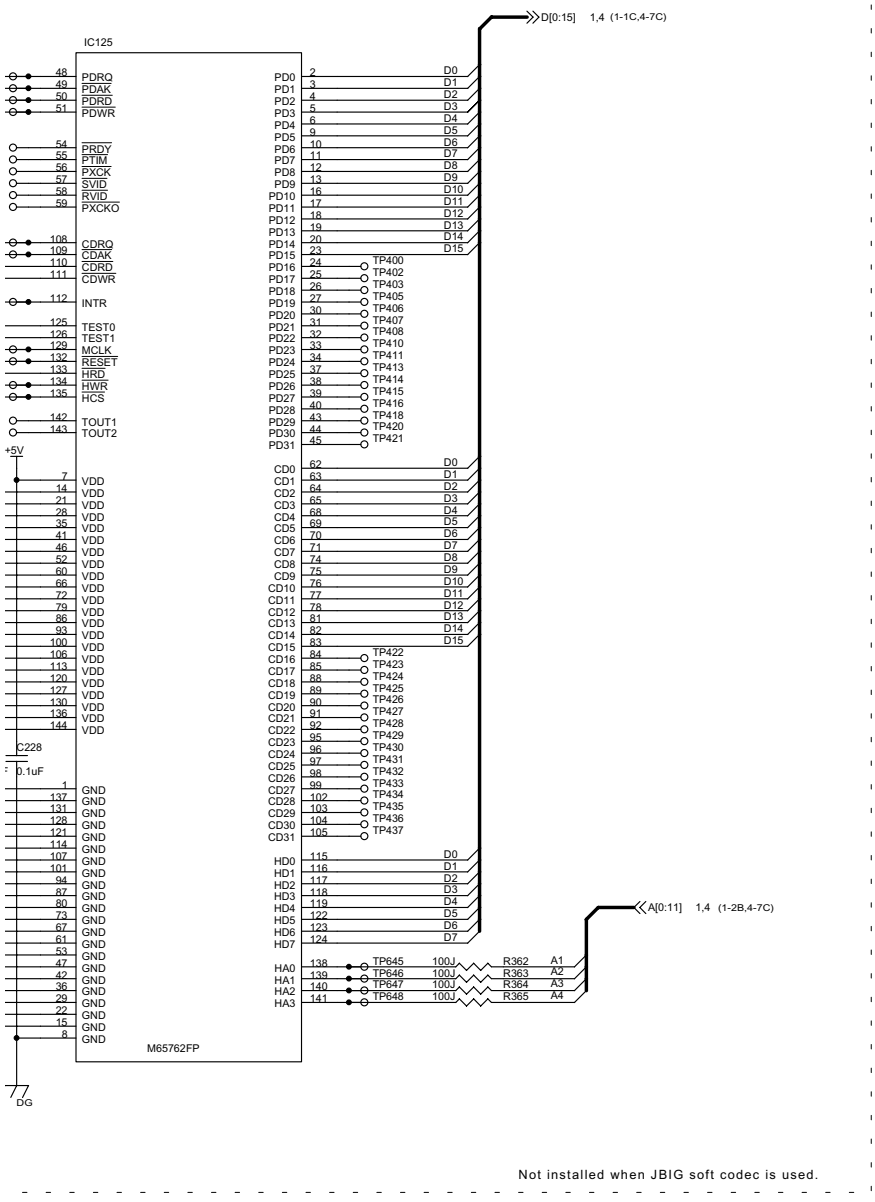
B. Circuit Diagram



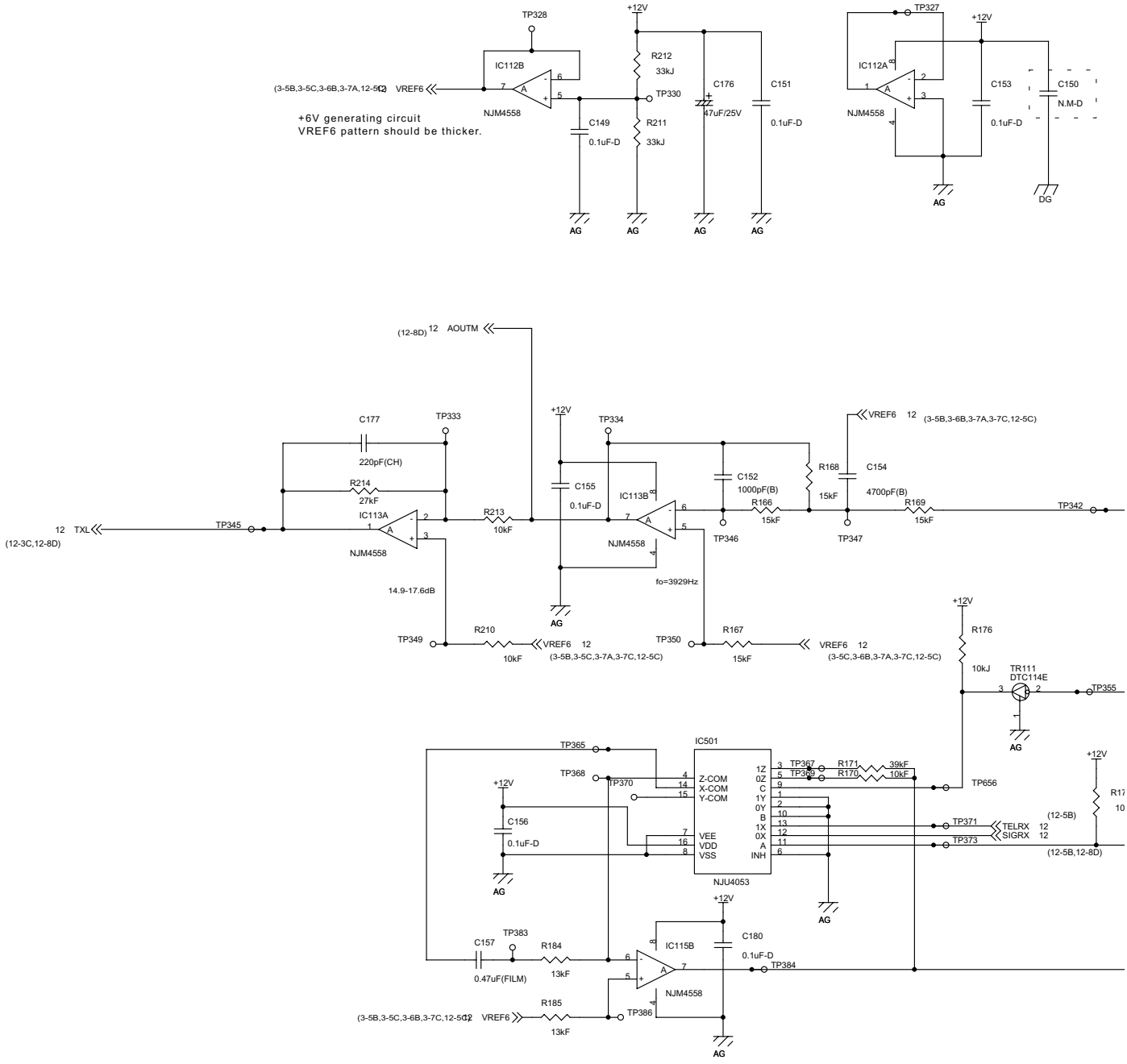

IC128
74LCX244
IC129
74LCX244
IC123
74LCX16652
+5V
+3.3V
DG
C272 0.1uF
C280 0.1uF
C223 C222 C236 C237
0.1uF 0.1uF 0.1uF 0.1uF
CD[0:31] 6,8
(6-5A,8-8D)
A[0:11] 2,4
(2-3B,4-7C)
CA[1:23] 6,8
(6-5A,8-8D)
D[0:15] 2,4
(2-3D,4-7C)
OEAB 6 (6-6A)
OEBA- 6 (6-6A)
CBA 6 (6-6A)
RD- 8 (8-2D,8-6B)
DBOOT 13 (13-6C)
ROMRY/BY- 8 (8-6B)
WAIT- 6 (6-6B)
ROM_VPP 8 (8-8B)
PTJ2 10 (10-8C)
PTJ3 10 (10-8C)
PTJ4 10 (10-8C)
CS0- 6,10 (6-6B,10-8B)
CS2- 8 (8-4D)
CS3- 6 (6-6B)
CS4- 6 (6-6B)
CS5- 6 (6-6B)
CS6- 6 (6-6B)
BS- 6 (6-6B)
WE0- 6,8 (6-6B,8-4C)
WE1- 6,8 (6-6B,8-4B)
RD/WR- 6,10
R361 33J (6-6B,10-8B)
DREQ0- 2 (2-6D)
DACK0- 13 (13-8C)
DREQ1- 2 (2-6D)
DACK1- 13 (13-8C)
AUDSYNC- 9 (9-2C)
CPU_TDO 9 (9-2B)
AUDCK 9 (9-2B)
AUDATA[0:3] 9 (9-2C)
AUDATA0
AUDATA1
AUDATA2
AUDATA3
ASEBRKRK- 9 (9-2B)
TPW103 N.M
TPW102 N.M

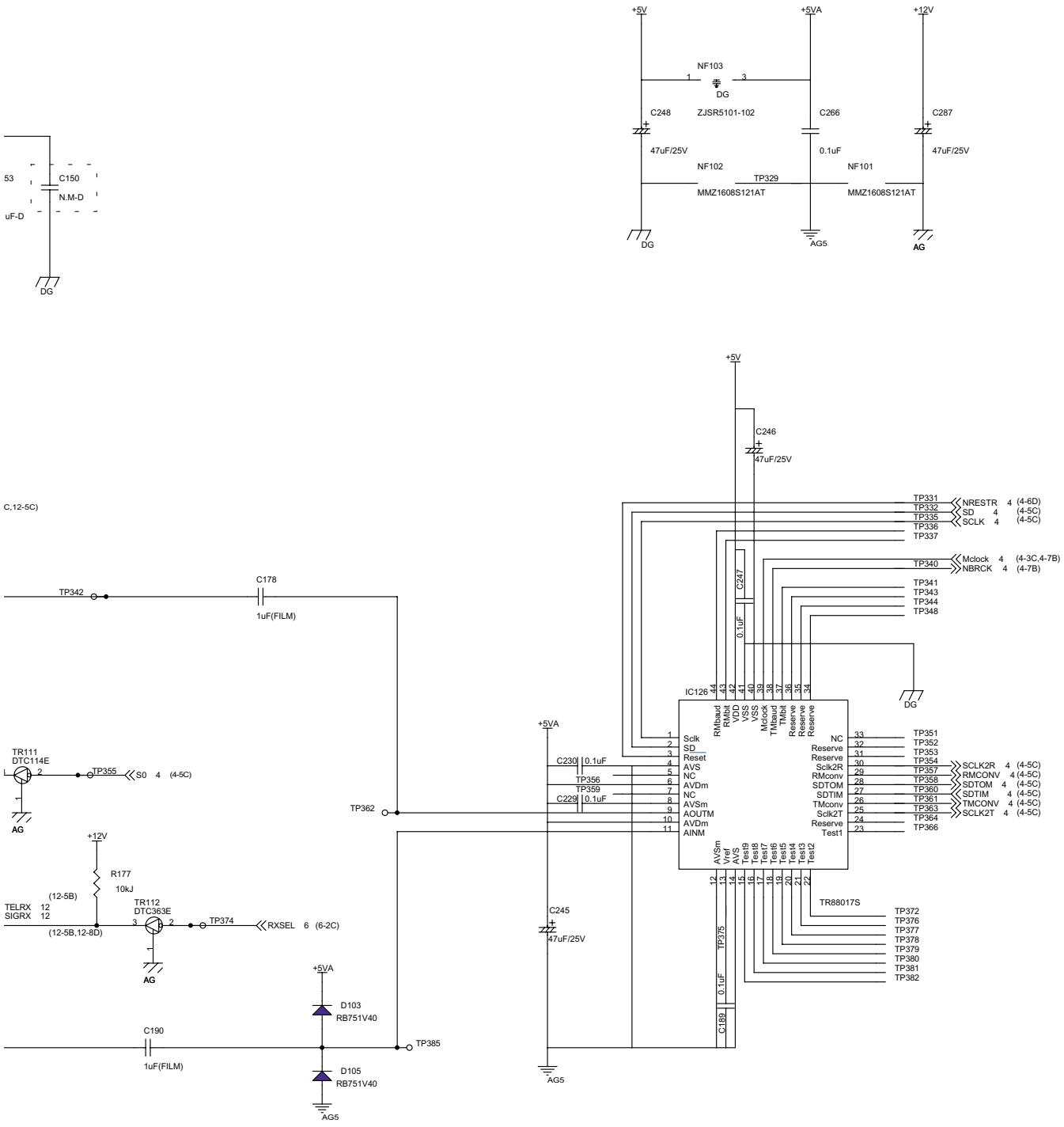
MDMC PWB JBIG (2/13)



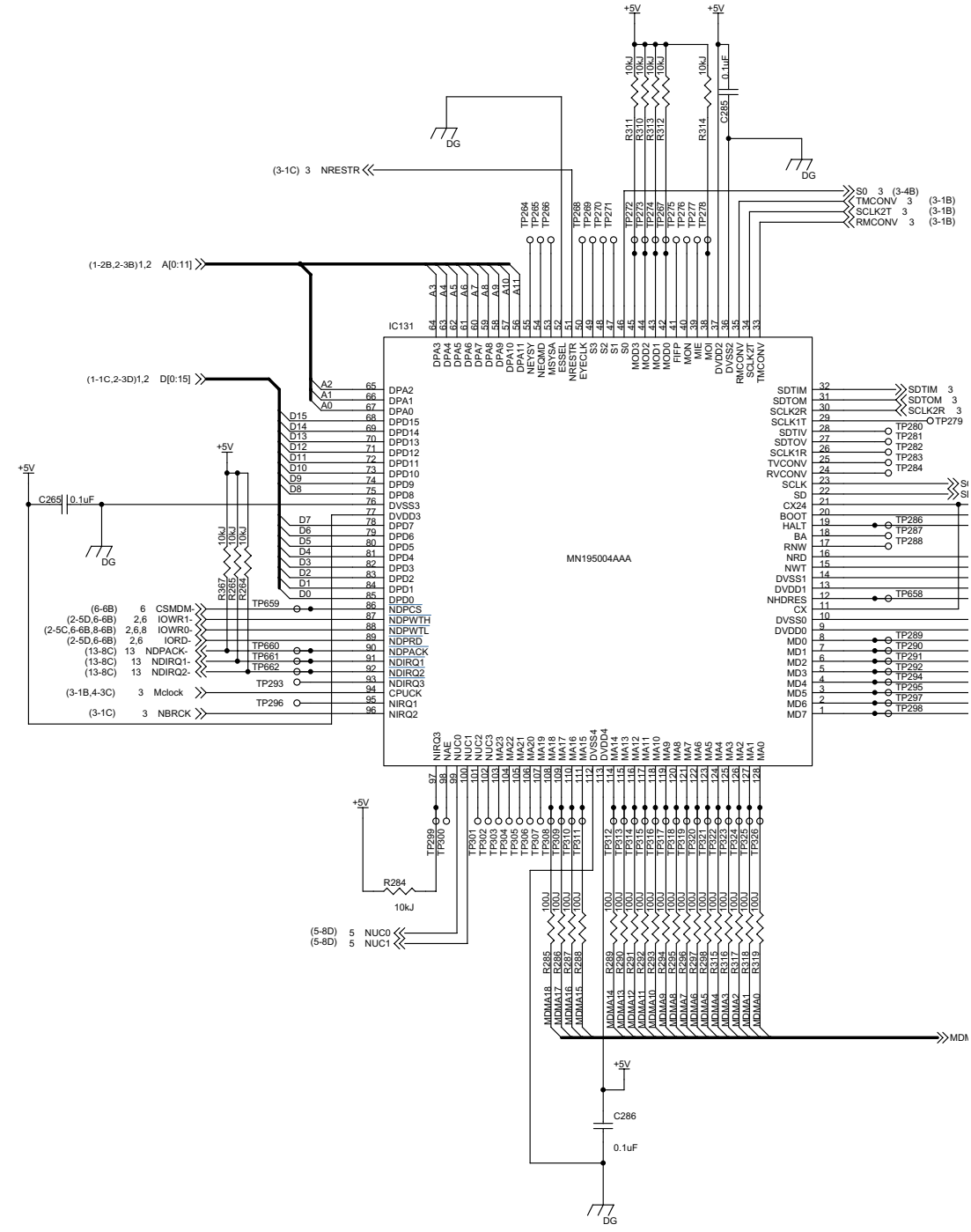

IC125
M65762FP
D[0:15] 1,4 (1-1C,4-7C)
A[0:11] 1,4 (1-2B,4-7C)
+5V
C228
0.1uF
DG
TP400
TP402
TP403
TP405
TP406
TP407
TP408
TP410
TP411
TP413
TP414
TP415
TP416
TP418
TP420
TP421
TP422
TP423
TP424
TP425
TP426
TP427
TP428
TP429
TP430
TP431
TP432
TP433
TP434
TP435
TP436
TP437
TP645
TP646
TP647
TP648
100J
R362
R363
R364
R365
Not installed when JBIG soft codec is used.

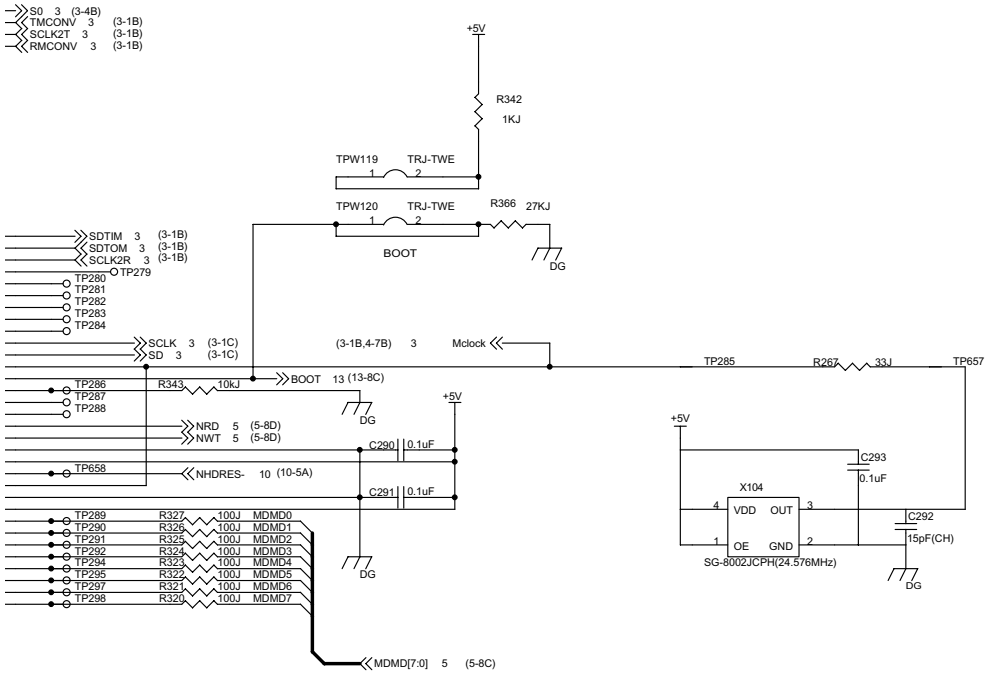
MDMC PWB MODEM (AFE) (3/13)



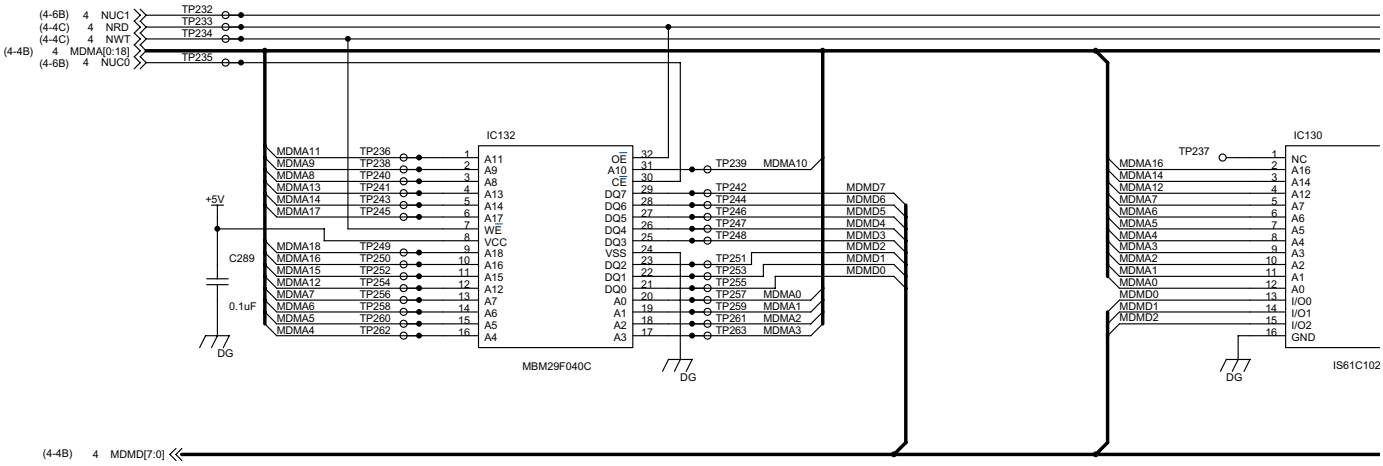

+5V
+5VA
+12V
NF103
DG
C248
ZJSR5101-102
C266
C287
47uF/25V
0.1uF
47uF/25V
NF102
TP329
NF101
MMZ1608S121AT
MMZ1608S121AT
DG
AG5
AG
C150
N.M-D
DG
C246
47uF/25V
TP331
TP332
TP335
TP336
TP337
TP340
TP341
TP343
TP344
TP348
NRESTR 4 (4-6D)
SD 4 (4-5C)
SCLK 4 (4-5C)
Mclock 4 (4-3C,4-7B)
NBRCK 4 (4-7B)
C247
0.1uF
DG
IC126
Sclk
SD
Reset
AVS
NC
AVDm
NC
AVSm
AOUTM
AVDm
AINM
NC
Reserve
Reserve
Sclk2R
RMconv
SDTOM
SDTIM
TMconv
Sclk2T
Reserve
Test1
TP351
TP352
TP353
TP354
TP357
TP358
TP360
TP361
TP363
TP364
TP366
SCLK2R 4 (4-5C)
RMCONV 4 (4-5C)
SDTOM 4 (4-5C)
SDTIM 4 (4-5C)
TMCONV 4 (4-5C)
SCLK2T 4 (4-5C)
TR88017S
TP372
TP376
TP377
TP378
TP379
TP380
TP381
TP382
TP375
0.1uF
C189
C178
1uF(FILM)
TP342
TR111
DTC114E
TP355
S0 4 (4-5C)
AG
C230 0.1uF
TP356
TP359
C229 0.1uF
TP362
+12V
R177
10kJ
(12-5B)
TELRX 12
SIGRX 12
TR112
DTC363E
TP374
RXSEL 6 (6-2C)
(12-5B,12-8D)
AG
C245
47uF/25V
AG5
+5VA
D103
RB751V40
C190
1uF(FILM)
TP385
D105
RB751V40
AG5

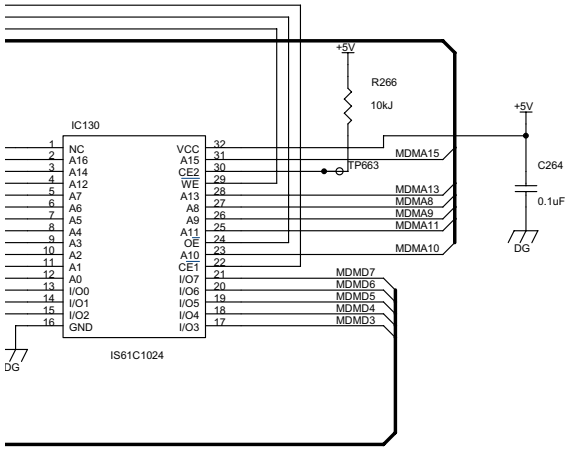
MDMC PWB MODEM (DSP) (4/13)



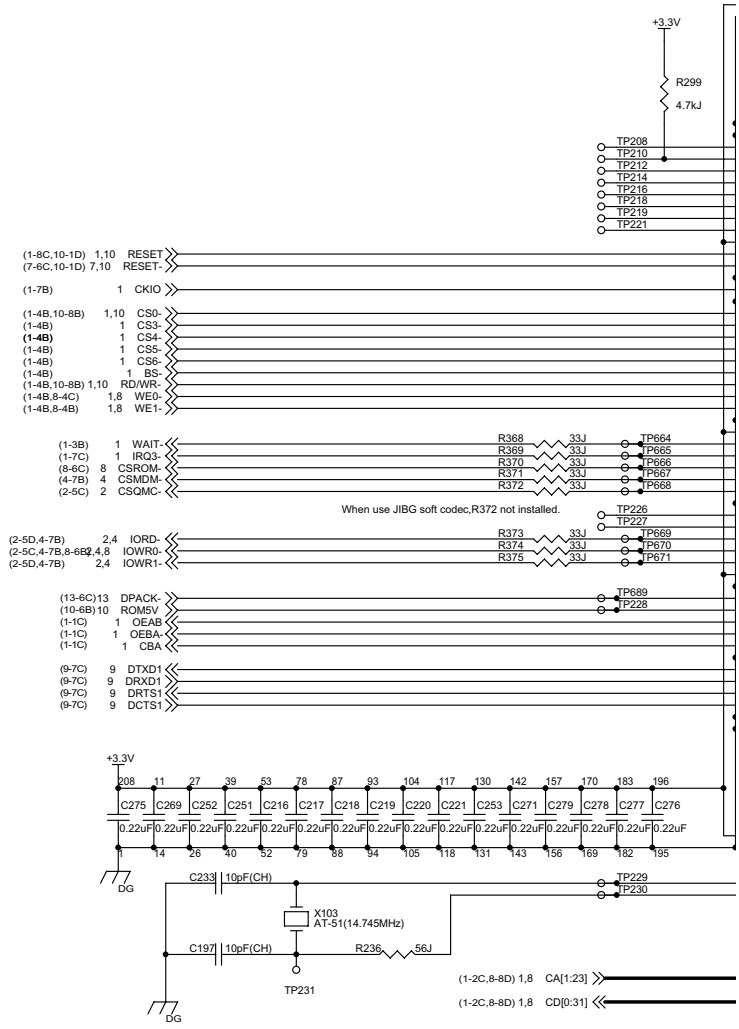

S0 3 (3-4B)
TMCONV 3 (3-1B)
SCLK2T 3 (3-1B)
RMCONV 3 (3-1B)
+5V
R342
1KJ
TPW119 TRJ-TWE
TPW120 TRJ-TWE
R366 27KJ
BOOT
DG
SDTIM 3 (3-1B)
SDTOM 3 (3-1B)
SCLK2R 3 (3-1B)
TP279
TP280
TP281
TP282
TP283
TP284
SCLK 3 (3-1C)
SD 3 (3-1C)
(3-1B,4-7B) 3 Mclock
TP285
R267 33J
TP657
TP286
R343 10kJ
BOOT 13 (13-8C)
TP287
TP288
NRD 5 (5-8D)
NWT 5 (5-8D)
C290 0.1uF
C291 0.1uF
TP658
NHDRES- 10 (10-5A)
TP289 R327 100J MDMD0
TP290 R326 100J MDMD1
TP291 R325 100J MDMD2
TP292 R324 100J MDMD3
TP294 R323 100J MDMD4
TP295 R322 100J MDMD5
TP297 R321 100J MDMD6
TP298 R320 100J MDMD7
MDMD[7:0] 5 (5-8C)
C293
0.1uF
X104
VDD OUT
OE GND
SG-8002JCPH(24.576MHz)
C292
15pF(CH)
MDMA[0:18] 5 (5-8D)

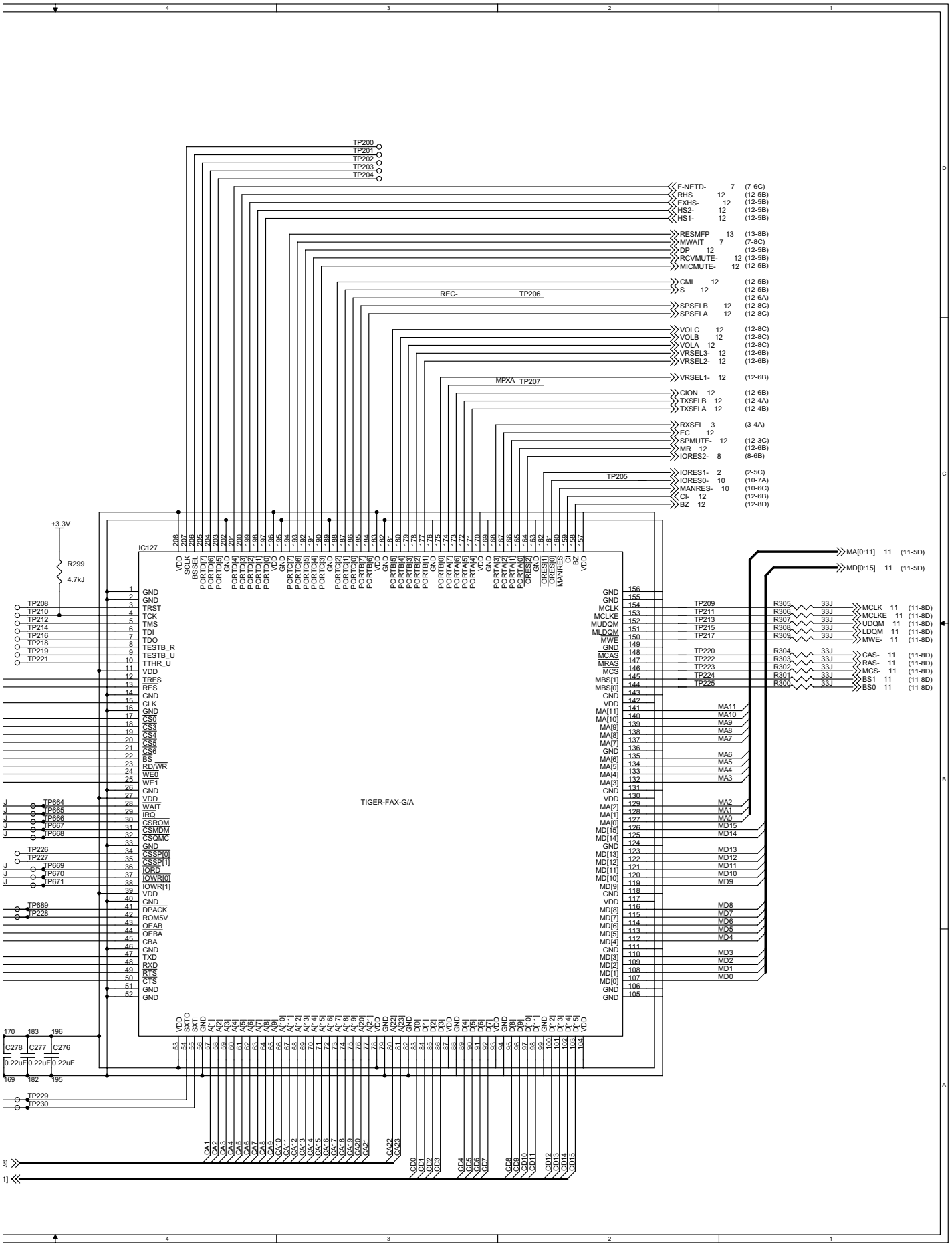
MDMC PWB MODEM (ROM, RAM) (5/13)



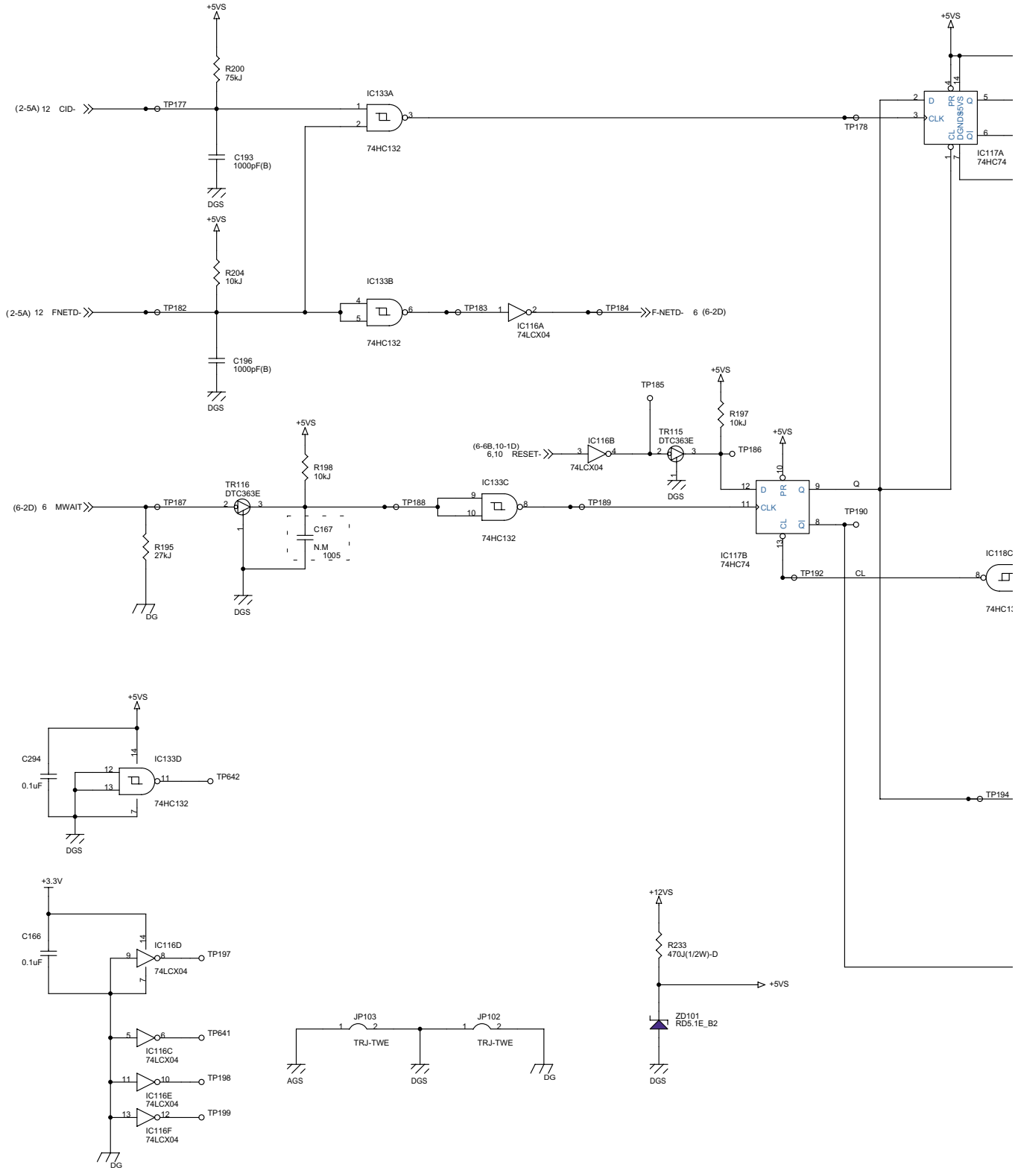

IC130
NC
A16
A14
A12
A7
A6
A5
A4
A3
A2
A1
A0
I/O0
I/O1
I/O2
GND
VCC
A15
CE2
WE
A13
A8
A9
A11
OE
A10
CE1
I/O7
I/O6
I/O5
I/O4
I/O3
IS61C1024
DG
+5V
R266
10kJ
TP663
+5V
C264
0.1uF
DG
MDMA15
MDMA13
MDMA8
MDMA9
MDMA11
MDMA10
MDMD7
MDMD6
MDMD5
MDMD4
MDMD3

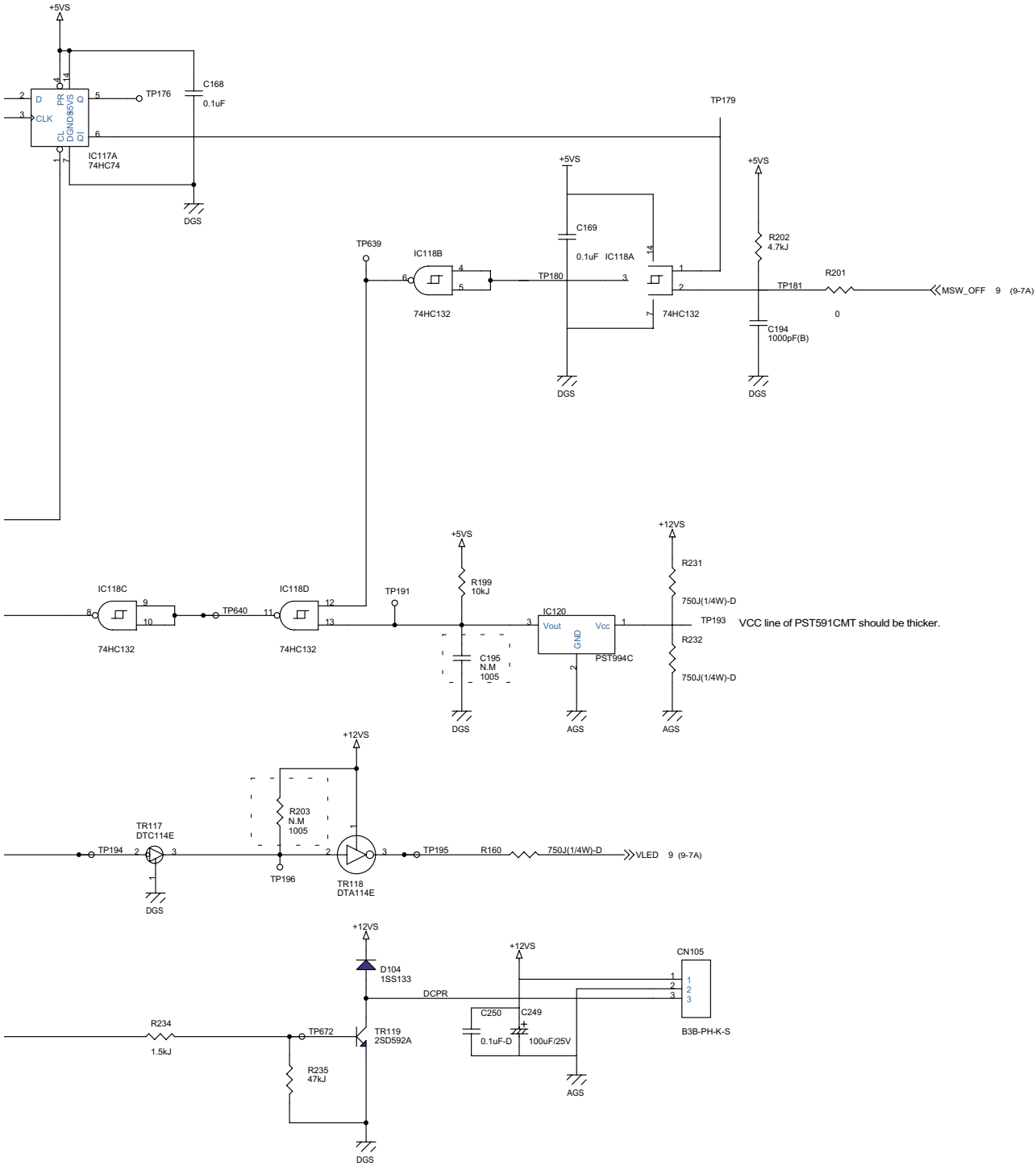
MDMC PWB FAX G/A (6/13)



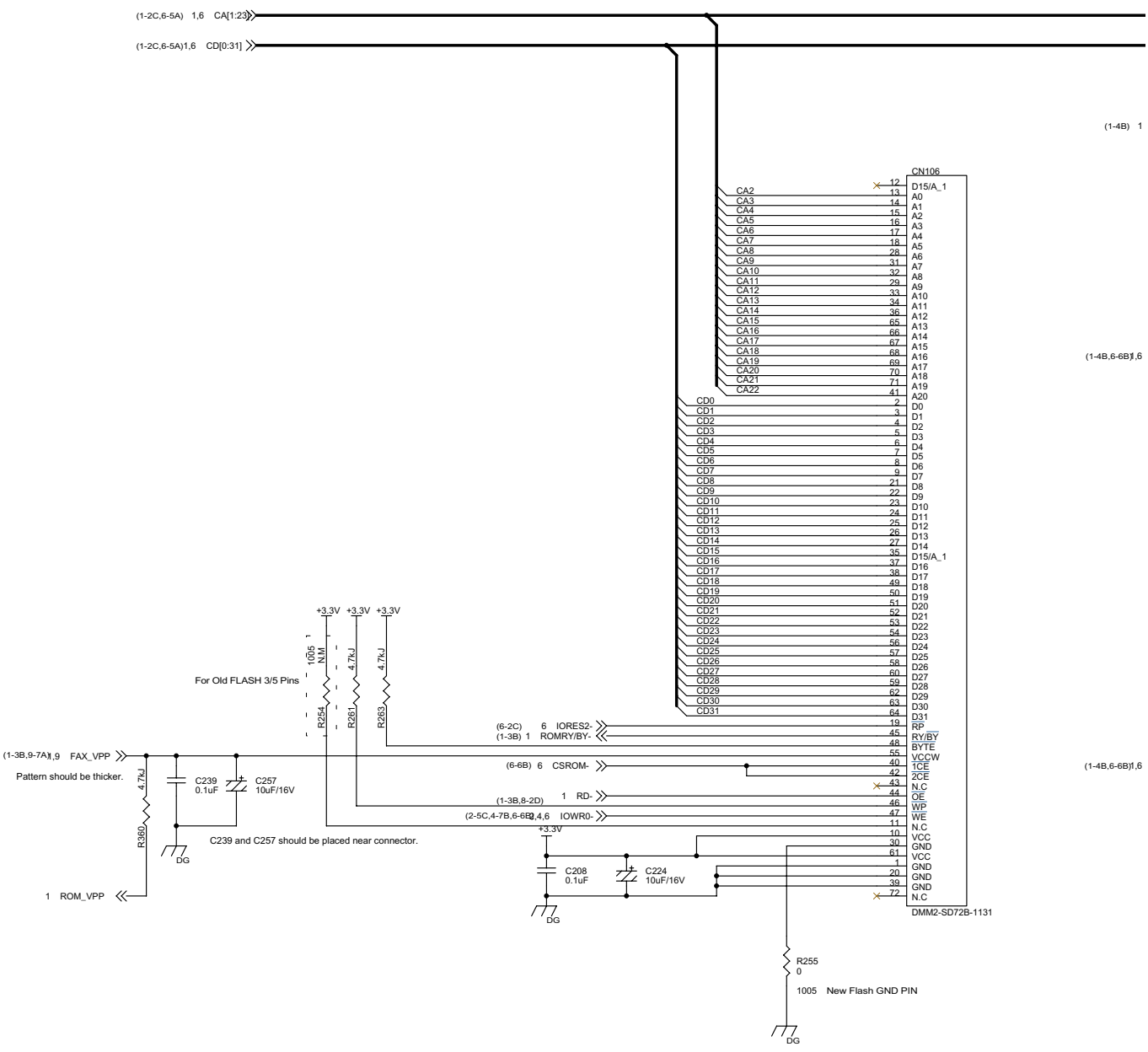

TP200
TP201
TP202
TP203
TP204
F-NETD- 7 (7-6C)
RHS 12 (12-5B)
EXHS- 12 (12-5B)
HS2- 12 (12-5B)
HS1- 12 (12-5B)
RESMFP 13 (13-8B)
MWAIT 7 (7-8C)
DP 12 (12-5B)
RCVMUTE- 12 (12-5B)
MICMUTE- 12 (12-5B)
CML 12 (12-5B)
S 12 (12-5B)
(12-6A)
REC- TP206
SPSELB 12 (12-8C)
SPSELA 12 (12-8C)
VOLC 12 (12-8C)
VOLB 12 (12-8C)
VOLA 12 (12-8C)
VRSEL3- 12 (12-6B)
VRSEL2- 12 (12-6B)
VRSEL1- 12 (12-6B)
MPXA TP207
CION 12 (12-6B)
TXSELB 12 (12-4A)
TXSELA 12 (12-4B)
RXSEL 3 (3-4A)
EC 12
SPMUTE- 12 (12-3C)
MR 12 (12-6B)
IORES2- 8 (8-6B)
TP205
IORES1- 2 (2-5C)
IORES0- 10 (10-7A)
MANRES- 10 (10-6C)
CI- 12 (12-6B)
BZ 12 (12-8D)
+3.3V
R299
4.7kJ
IC127
TIGER-FAX-G/A
MA[0:11] 11 (11-5D)
MD[0:15] 11 (11-5D)
TP208
TP210
TP212
TP214
TP216
TP218
TP219
TP221
TP209
TP211
TP213
TP215
TP217
TP220
TP222
TP223
TP224
TP225
R305 33J MCLK 11 (11-8D)
R306 33J MCLKE 11 (11-8D)
R307 33J UDQM 11 (11-8D)
R308 33J LDQM 11 (11-8D)
R309 33J MWE- 11 (11-8D)
R304 33J CAS- 11 (11-8D)
R303 33J RAS- 11 (11-8D)
R302 33J MCS- 11 (11-8D)
R301 33J BS1 11 (11-8D)
R300 33J BS0 11 (11-8D)
TP664
TP665
TP666
TP667
TP668
TP226
TP227
TP669
TP670
TP671
TP689
TP228
C278 0.22uF
C277 0.22uF
C276 0.22uF
TP229
TP230

MDMC PWB NIGHTTIME FAX (7/13)

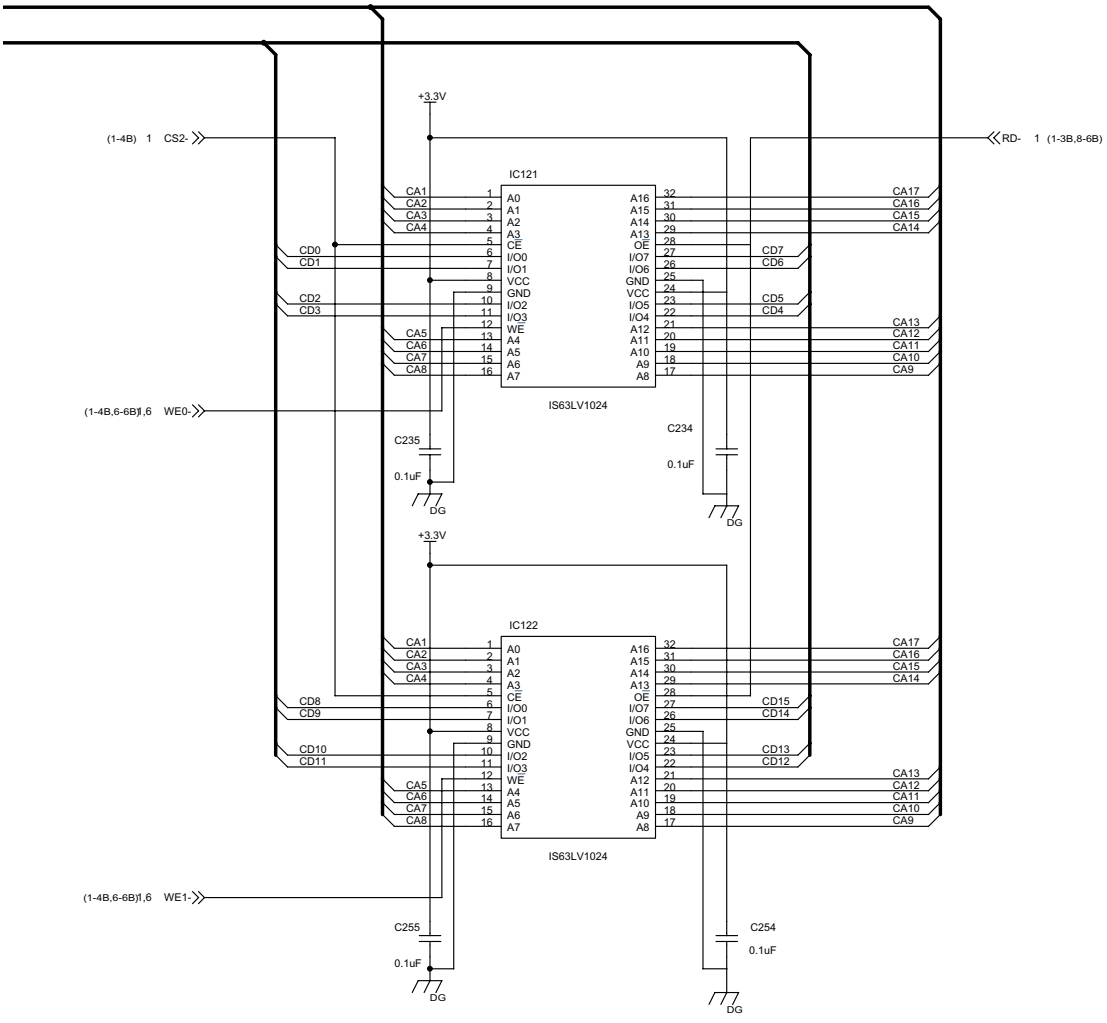



+5VS
C168
0.1uF
TP176
IC117A
74HC74
DGS
TP179
TP639
IC118B
74HC132
TP180
C169
0.1uF
IC118A
74HC132
+5VS
DGS
+5VS
R202
4.7kJ
TP181
R201
0
MSW_OFF 9 (9-7A)
C194
1000pF(B)
DGS
IC118C
74HC132
TP640
IC118D
74HC132
TP191
+5VS
R199
10kJ
C195
N.M
1005
DGS
IC120
PST994C
Vout
Vcc
GND
AGS
+12VS
R231
750J(1/4W)-D
TP193
R232
750J(1/4W)-D
AGS
VCC line of PST591CMT should be thicker.
+12VS
TR117
DTC114E
TP194
R203
N.M
1005
TP196
TR118
DTA114E
TP195
R160
750J(1/4W)-D
VLED 9 (9-7A)
DGS
+12VS
D104
1SS133
DCPR
+12VS
CN105
B3B-PH-K-S
R234
1.5kJ
TP672
TR119
2SD592A
C250
0.1uF-D
C249
100uF/25V
AGS
R235
47kJ
DGS

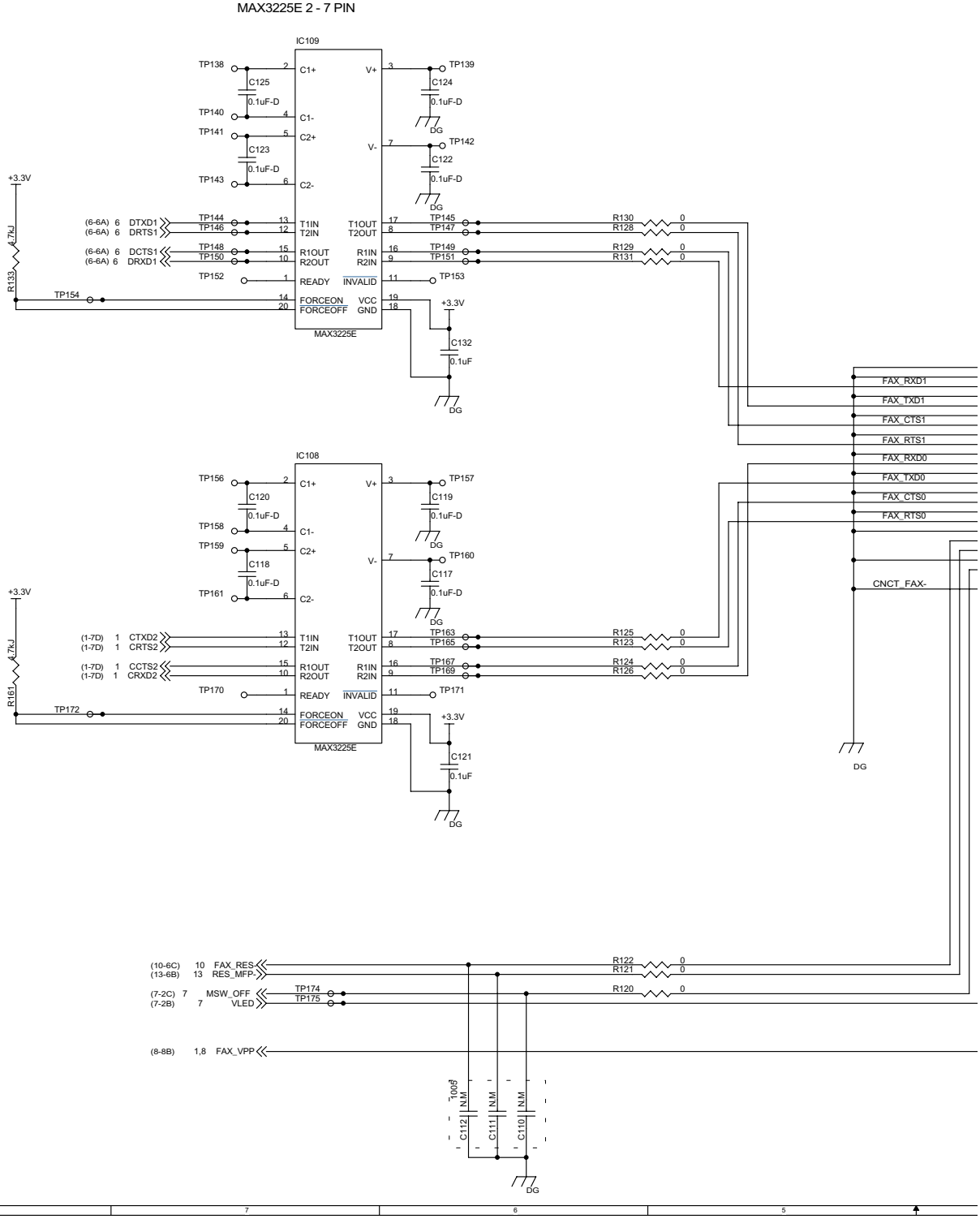
MDMC PWB CPU WORK MEMORY PROGRAM ROM (8/13)

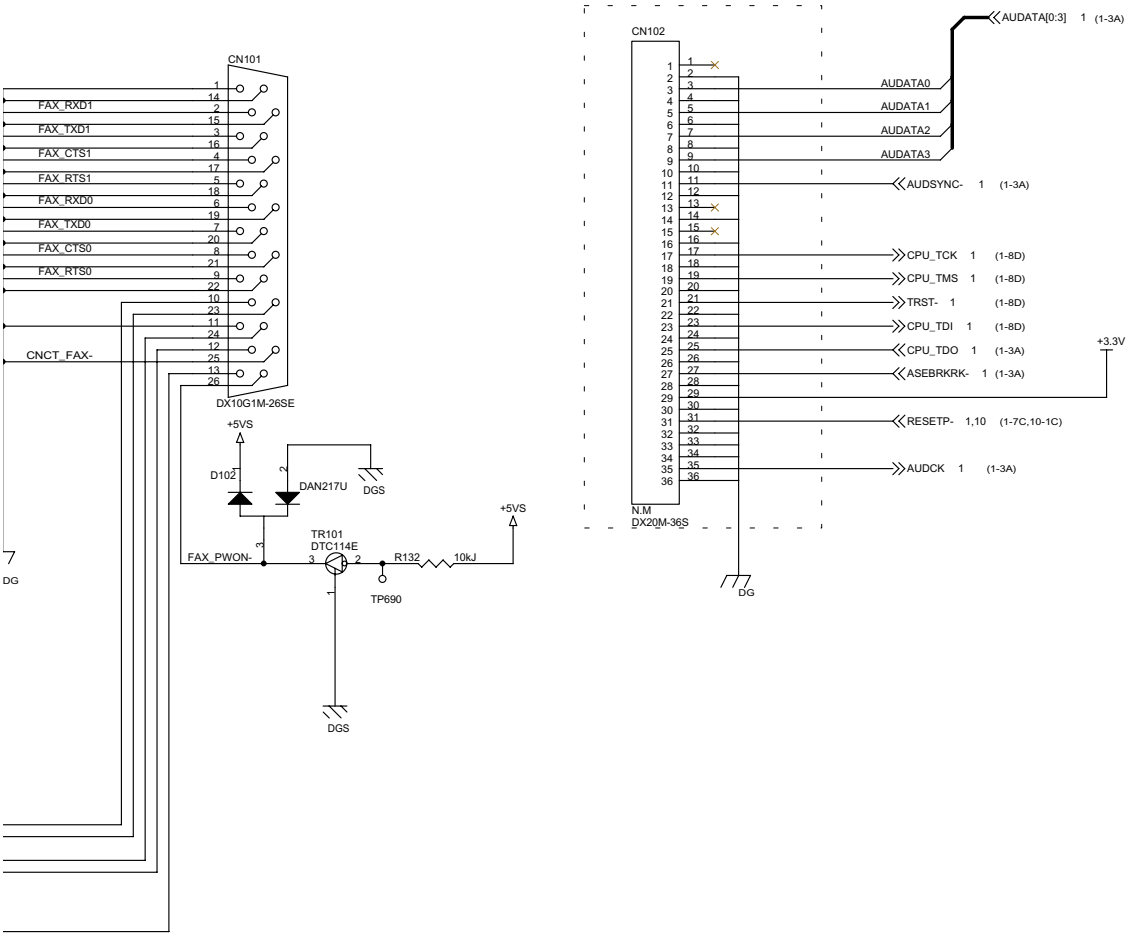


3)

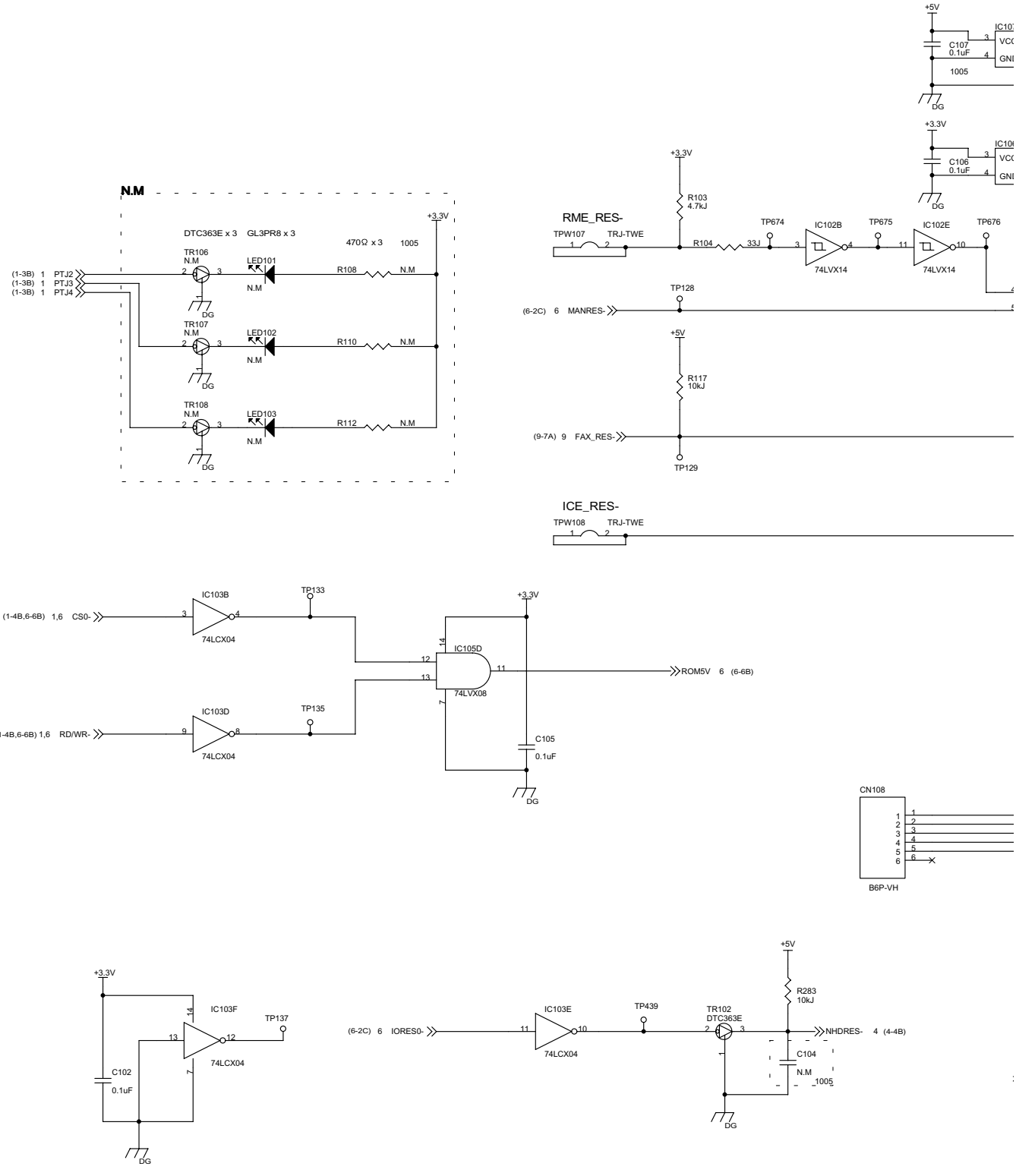

(1-4B) 1 CS2-
RD- 1 (1-3B,8-6B)
+3.3V
IC121
IS63LV1024
(1-4B,6-6B)1,6 WE0-
C235
0.1uF
C234
0.1uF
DG
+3.3V
IC122
IS63LV1024
(1-4B,6-6B)1,6 WE1-
C255
0.1uF
C254
0.1uF
DG

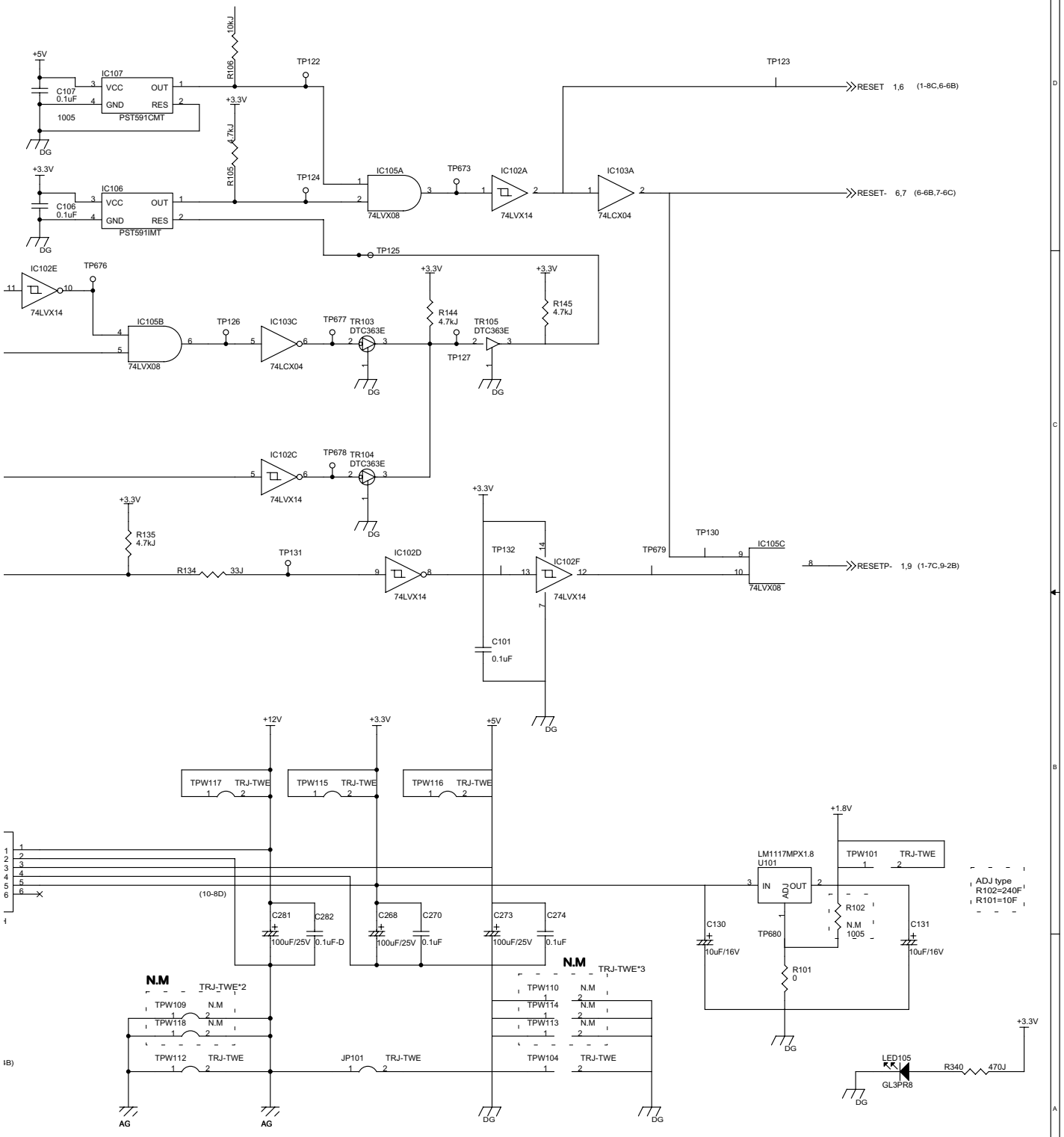
MDMC PWB MFP-I / F, H-UDI-I / F (9/13)



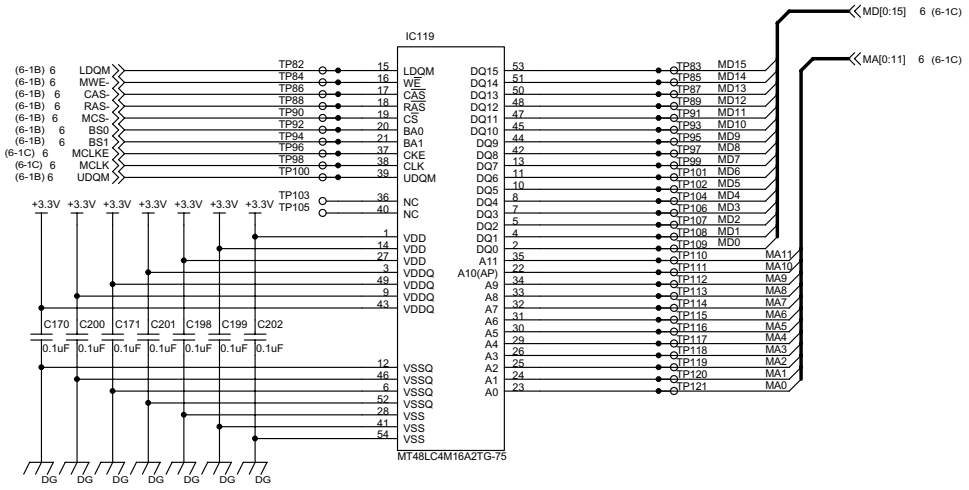

CN101
FAX_RXD1
FAX_TXD1
FAX_CTS1
FAX_RTS1
FAX_RXD0
FAX_TXD0
FAX_CTS0
FAX_RTS0
CNCT_FAX-
DX10G1M-26SE
+5VS
D102
DAN217U
DGS
TR101
DTC114E
FAX_PWON-
R132
10kJ
TP690
DGS
DG
CN102
AUDATA[0:3] 1 (1-3A)
AUDATA0
AUDATA1
AUDATA2
AUDATA3
AUDSYNC- 1 (1-3A)
CPU_TCK 1 (1-8D)
CPU_TMS 1 (1-8D)
TRST- 1 (1-8D)
CPU_TDI 1 (1-8D)
CPU_TDO 1 (1-3A)
ASEBRKRK- 1 (1-3A)
+3.3V
RESETP- 1,10 (1-7C,10-1C)
AUDCK 1 (1-3A)
N.M
DX20M-36S
DG

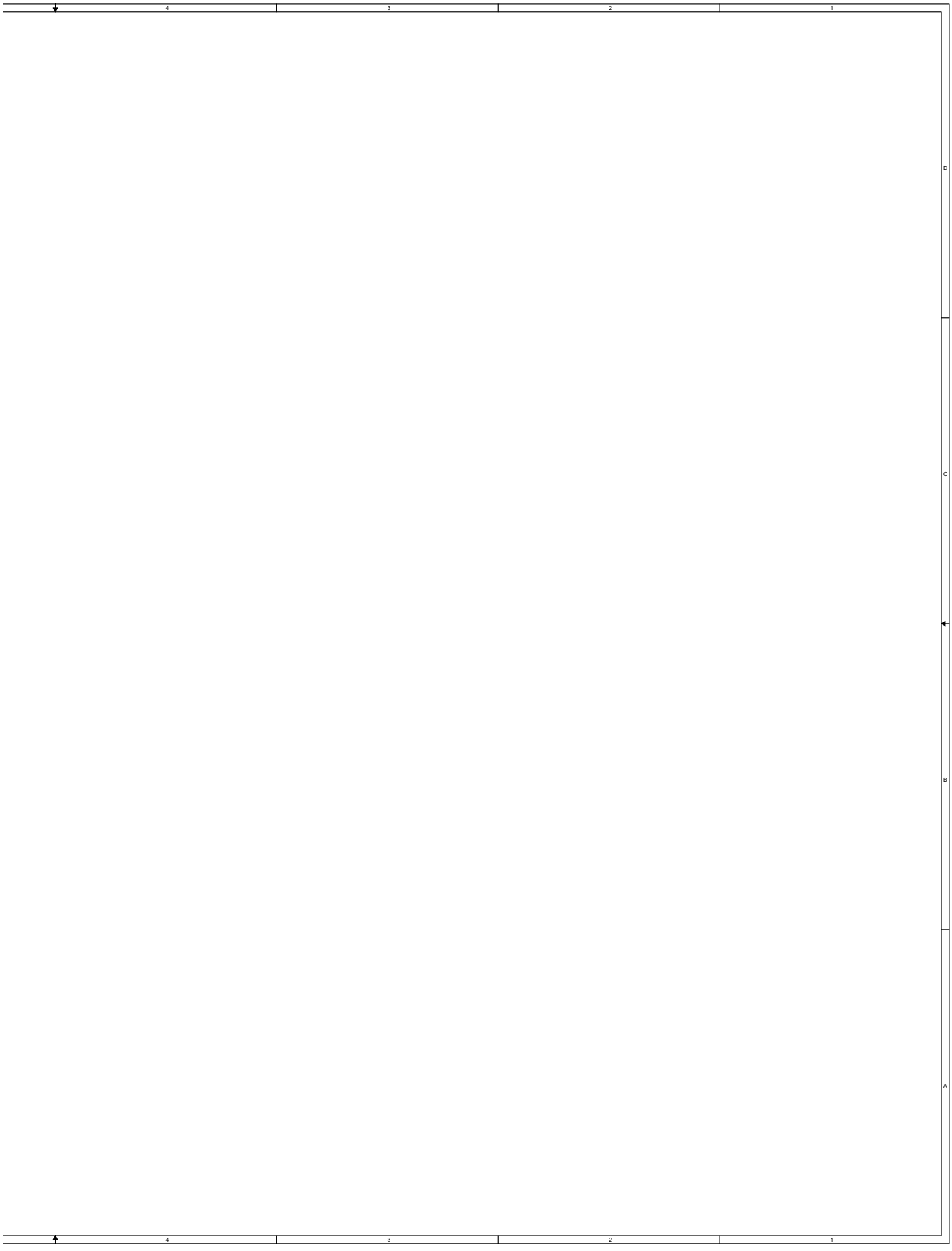
MDMC PWB RESET, POWER (10/13)



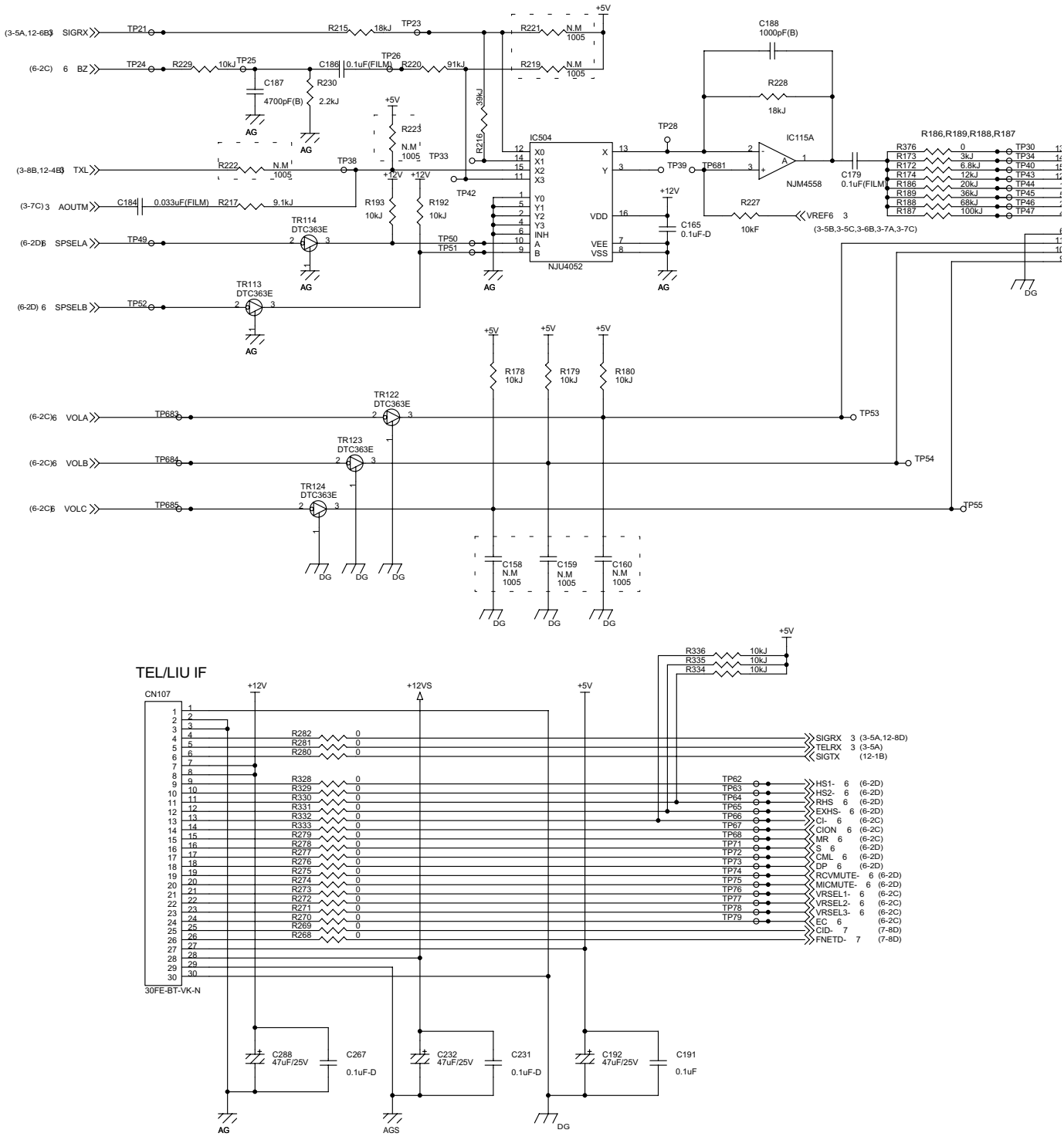

+5V
IC107
VCC
OUT
GND
RES
PST591CMT
C107
0.1uF
1005
DG
10kJ
R106
TP122
+3.3V
4.7kJ
R105
IC106
C106
0.1uF
PST591IMT
TP124
IC105A
74LVX08
TP673
IC102A
74LVX14
IC103A
74LCX04
TP123
RESET 1,6 (1-8C,6-6B)
RESET- 6,7 (6-6B,7-6C)
TP125
IC102E
TP676
74LVX14
IC105B
74LVX08
TP126
IC103C
74LCX04
TP677
TR103
DTC363E
R144
4.7kJ
TP127
TR105
DTC363E
R145
4.7kJ
IC102C
TP678
TR104
DTC363E
74LVX14
R135
4.7kJ
TP131
R134
33J
IC102D
74LVX14
TP132
IC102F
74LVX14
TP679
TP130
IC105C
74LVX08
RESETP- 1,9 (1-7C,9-2B)
C101
0.1uF
+12V
TPW117
TRJ-TWE
TPW115
TRJ-TWE
TPW116
TRJ-TWE
(10-8D)
C281
100uF/25V
C282
0.1uF-D
C268
100uF/25V
C270
0.1uF
C273
100uF/25V
C274
0.1uF
N.M
TRJ-TWE*2
TPW109
TPW118
TPW112
TRJ-TWE
JP101
TRJ-TWE
N.M
TRJ-TWE*3
TPW110
TPW114
TPW113
TPW104
TRJ-TWE
AG
AG
DG
DG
DG
+1.8V
LM1117MPX1.8
U101
IN
ADJ
OUT
TPW101
TRJ-TWE
ADJ type
R102=240F
R101=10F
R102
N.M
1005
C130
10uF/16V
TP680
C131
10uF/16V
R101
0
+3.3V
LED105
GL3PR8
R340
470J

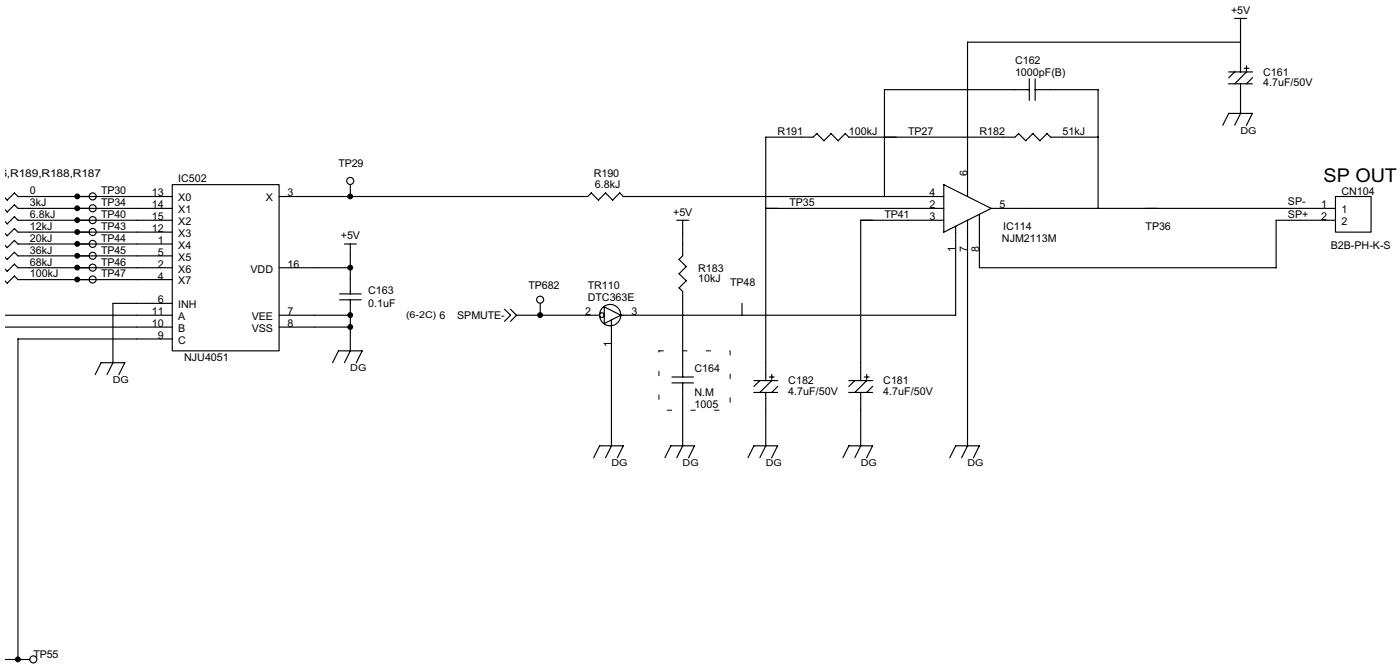
MDMC PWB SDRAM (11/13)

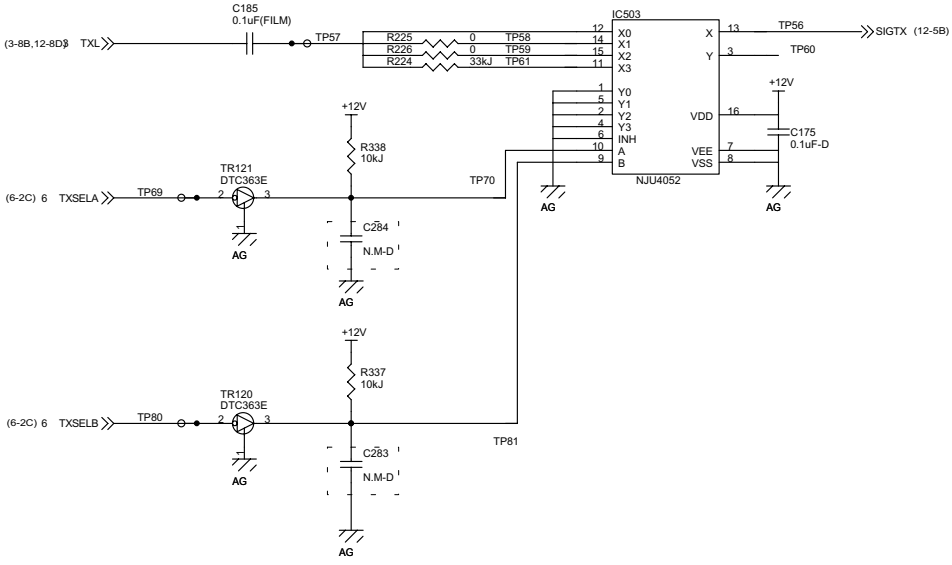



4
3
2
1
D
C
B
A

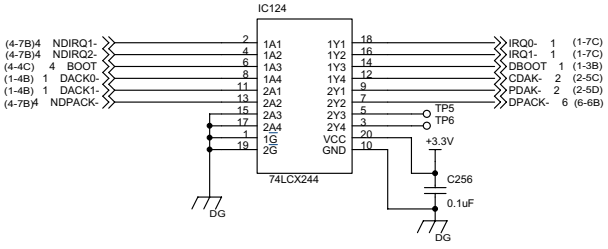
MDMC PWB VOICE PATH, TEL / LIU I / F (12/13)

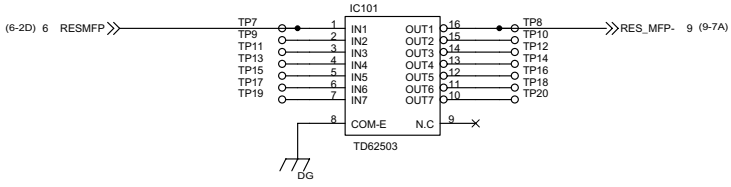


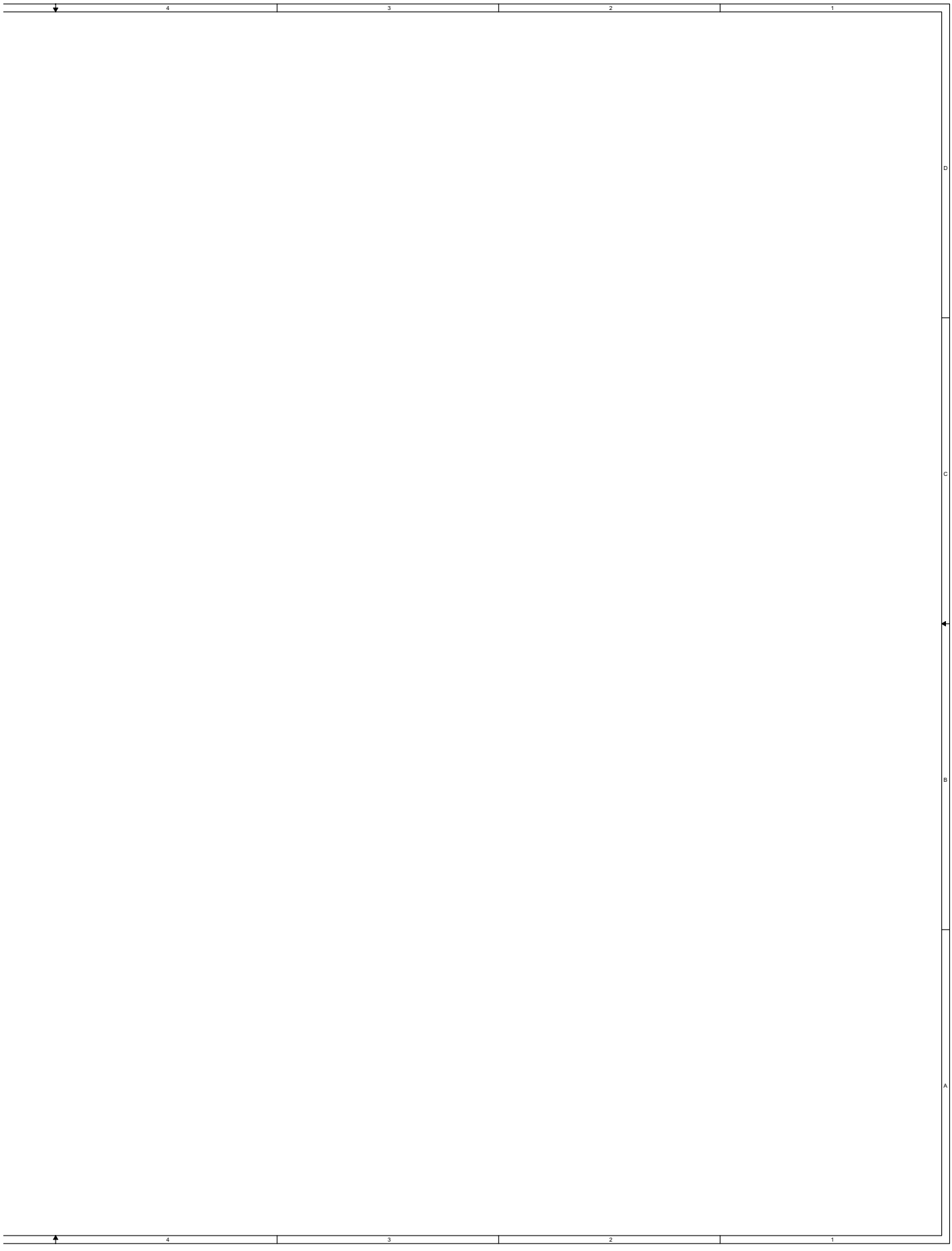

,R189,R188,R187
0
3kJ
6.8kJ
12kJ
20kJ
36kJ
68kJ
100kJ
TP30
TP34
TP40
TP43
TP44
TP45
TP46
TP47
IC502
X0
X1
X2
X3
X4
X5
X6
X7
INH
A
B
C
VDD
VEE
VSS
NJU4051
DG
TP29
+5V
C163
0.1uF
R190
6.8kJ
TP35
R191
100kJ
TP27
R182
51kJ
C162
1000pF(B)
+5V
C161
4.7uF/50V
DG
SP OUT
CN104
SP-
SP+
B2B-PH-K-S
IC114
NJM2113M
TP36
TP41
TP682
TR110
DTC363E
(6-2C) 6 SPMUTE
R183
10kJ
TP48
C164
N.M
1005
C182
4.7uF/50V
C181
4.7uF/50V
TP55


C185
0.1uF(FILM)
(3-8B,12-8D) TXL
TP57
R225
R226
R224
0
0
33kJ
TP58
TP59
TP61
IC503
X0
X1
X2
X3
Y0
Y1
Y2
Y3
INH
A
B
X
Y
VDD
VEE
VSS
NJU4052
TP56
SIGTX (12-5B)
TP60
+12V
C175
0.1uF-D
AG
+12V
R338
10kJ
TR121
DTC363E
(6-2C) 6 TXSELA
TP69
TP70
C284
N.M-D
AG
+12V
R337
10kJ
TR120
DTC363E
(6-2C) 6 TXSELB
TP80
TP81
C283
N.M-D
AG

MDMC PWB 3V-5V EXCHANGE (13/13)

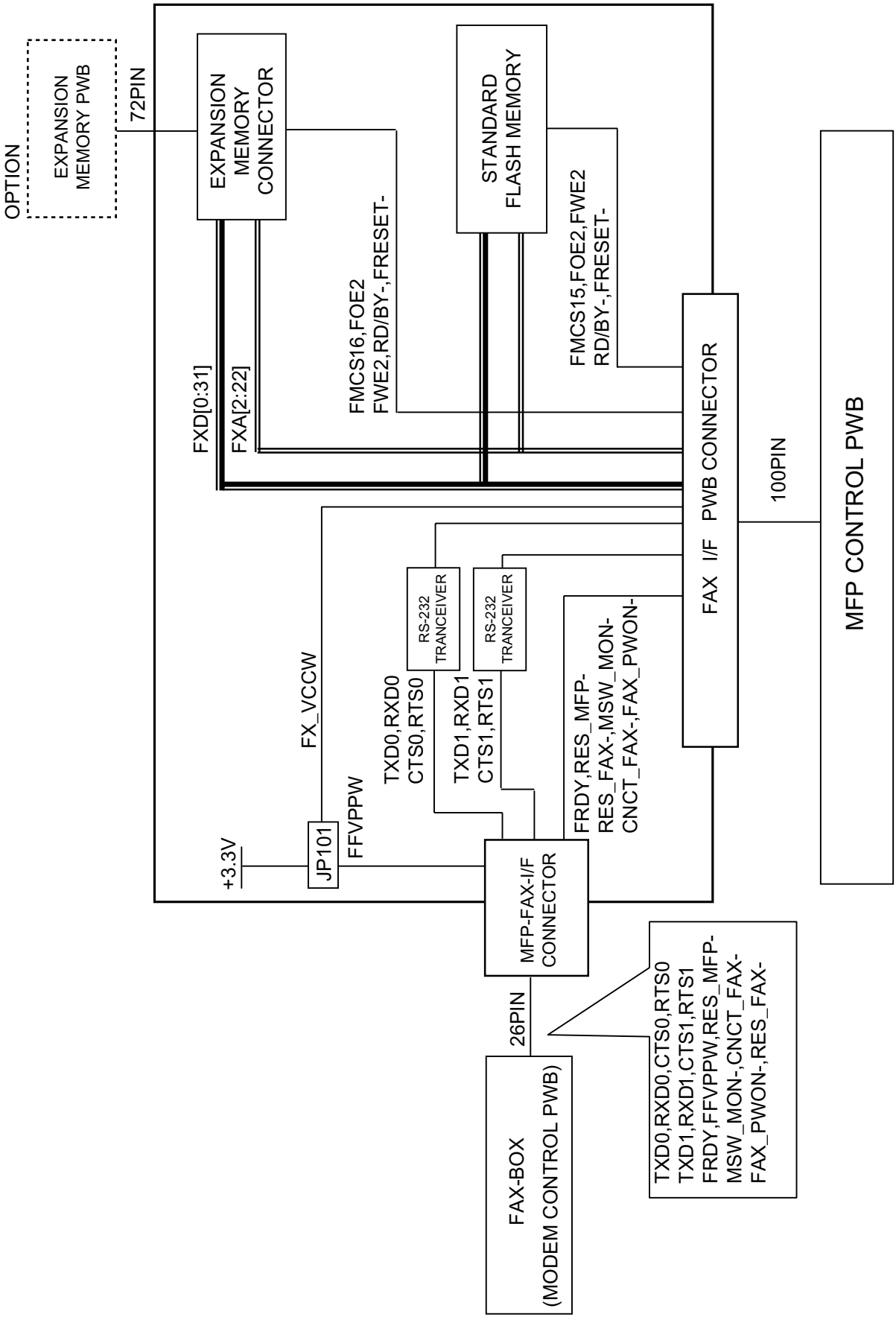




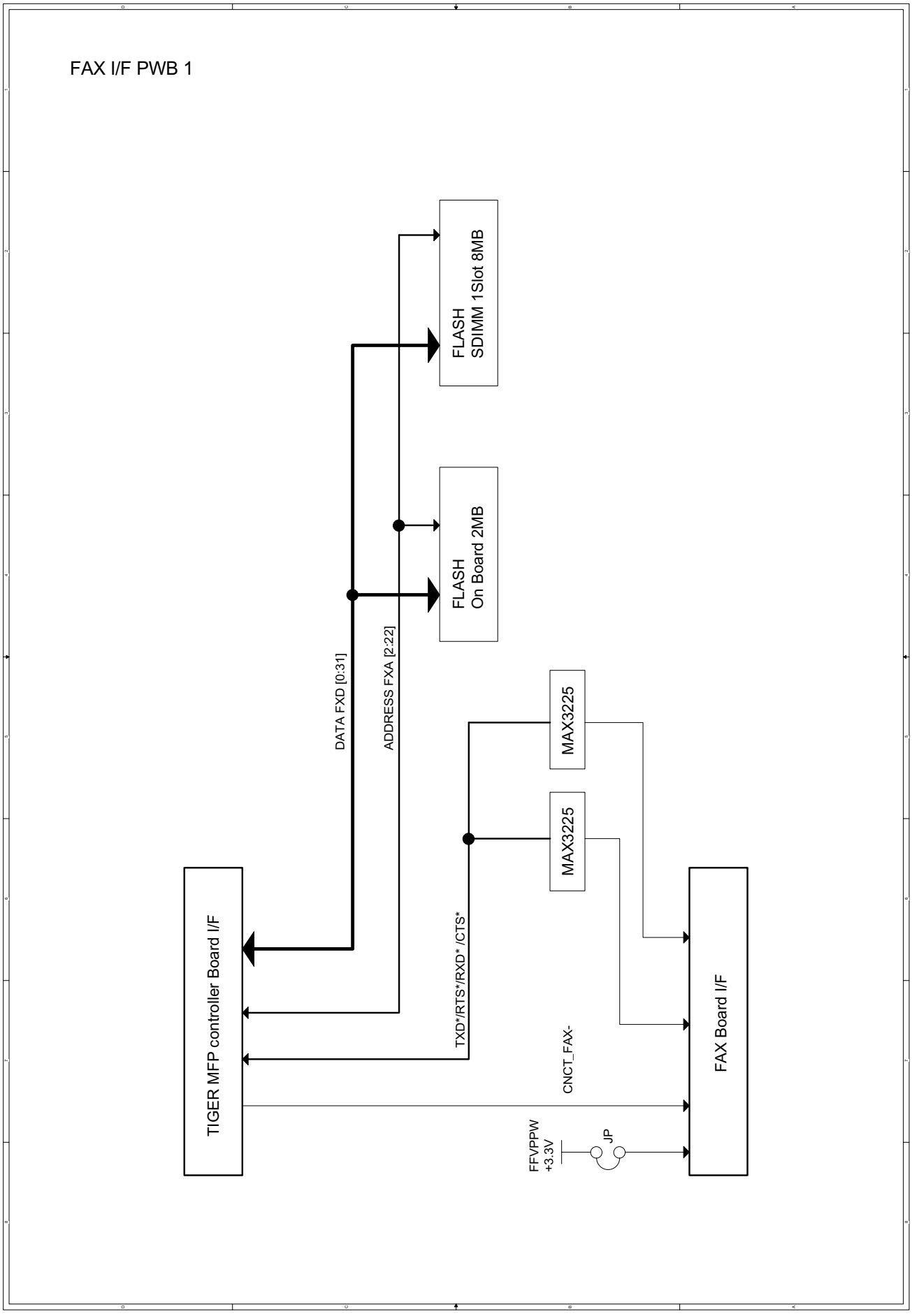


2. FAX Interface PWB

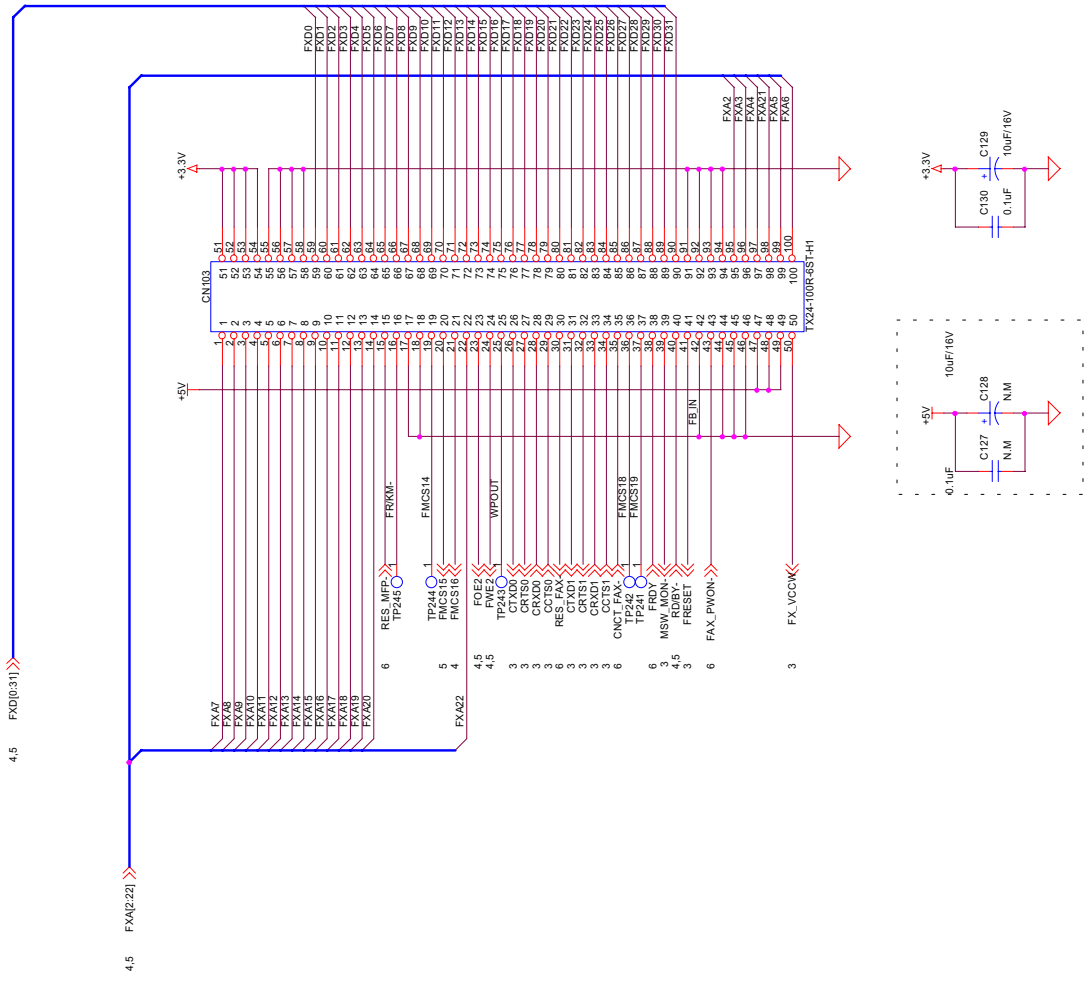
A. Block Diagram



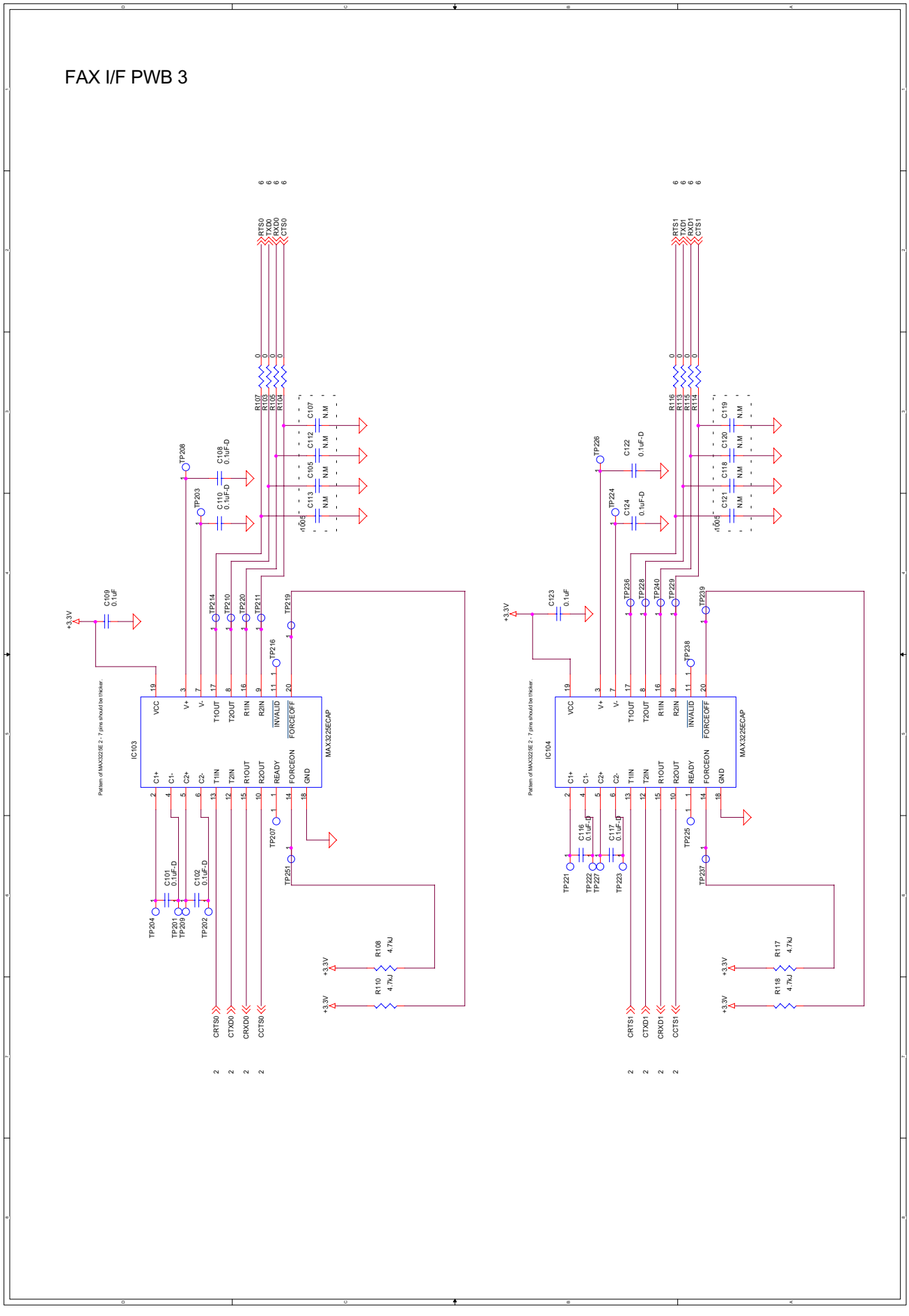
B. Circuit Diagram



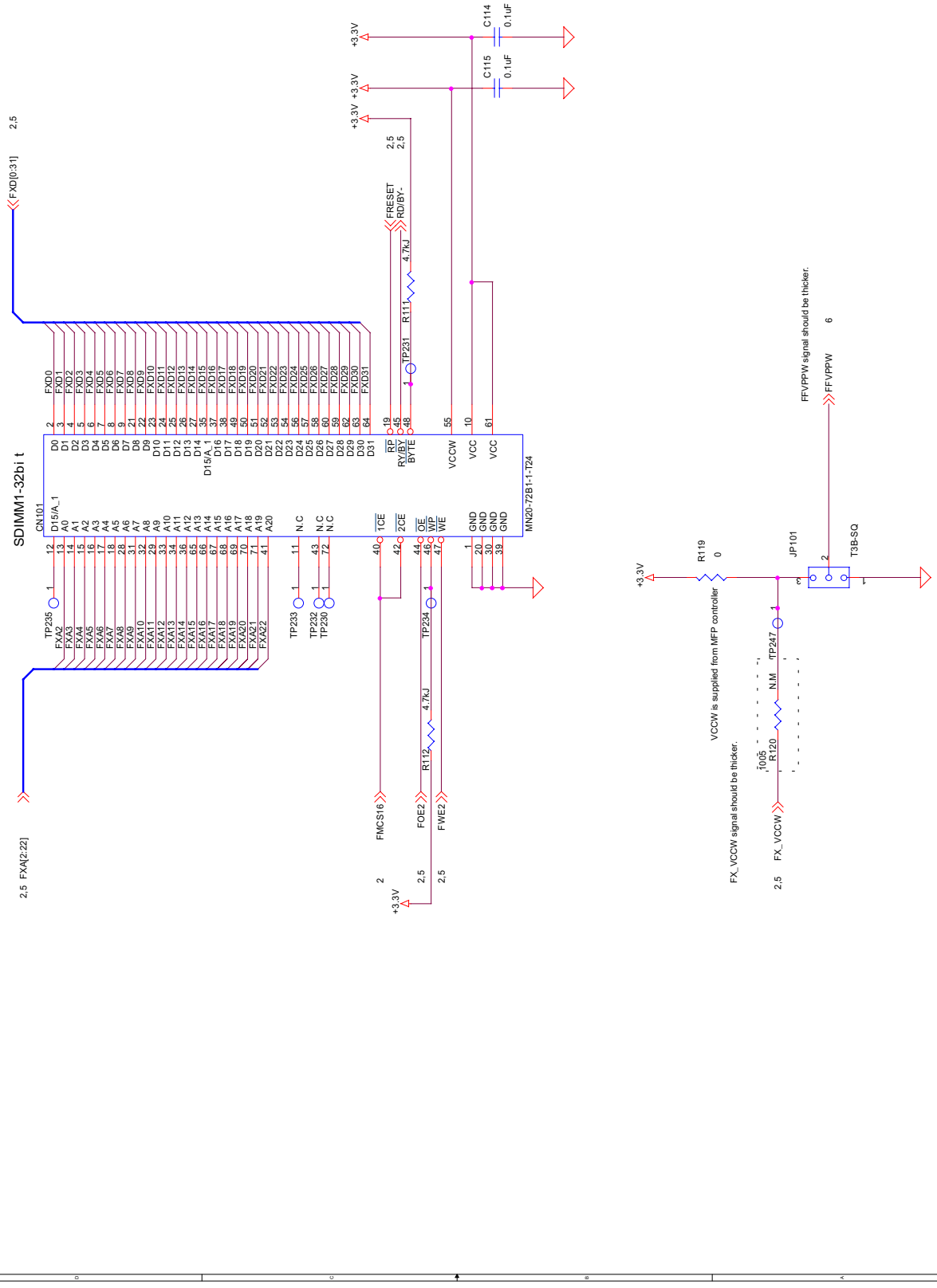
FAX I/F PWB 2


CN103
TX24-100R-8ST1-H1
FXD0
FXD1
FXD2
FXD3
FXD4
FXD5
FXD6
FXD7
FXD8
FXD9
FXD10
FXD11
FXD12
FXD13
FXD14
FXD15
FXD16
FXD17
FXD18
FXD19
FXD20
FXD21
FXD22
FXD23
FXD24
FXD25
FXD26
FXD27
FXD28
FXD29
FXD30
FXD31
FXA2
FXA3
FXA4
FXA21
FXA5
FXA6
+3.3V
+5V
C129
10uF/16V
C130
0.1uF
C128
N.M
C127
N.M
FB_IN
FR/KM-
FMCS14
WPOUT
FMCS18
FMCS19
RES_MFP-
TP245
TP244
FMCS15
FMCS16
FOE2
FWE2
TP243
CTXD0
CRTS0
CRXD0
CCTS0
RES_FAX-
CTXD1
CRTS1
CRXD1
CCTS1
CNCT_FAX-
TP242
TP241
FDY-
MSW_MON-
RD/BY-
FRESET
FAX_PWON-
FX_VCCW
FXA7
FXA8
FXA9
FXA10
FXA11
FXA12
FXA13
FXA14
FXA15
FXA16
FXA17
FXA18
FXA19
FXA20
FXA22
FXD[0:31]
FXA[2:22]

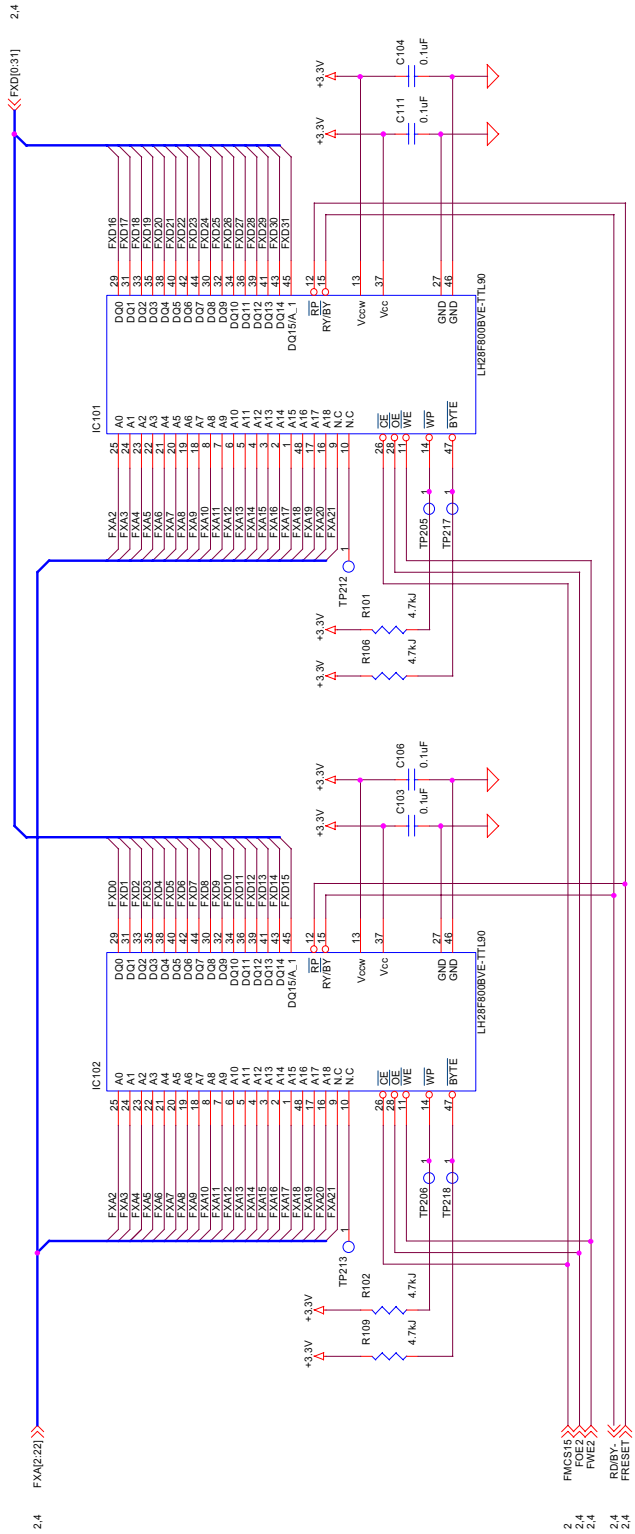
FAX I/F PWB 3


IC103
MAX3225ECAP
IC104
MAX3225ECAP
Pattern of MAX3221E 2 - 7 pins should be thicker.
+3.3V
C109 0.1uF
C123 0.1uF
C101 0.1uF-D
C102 0.1uF-D
C108 0.1uF-D
C110 0.1uF-D
C116 0.1uF-D
C117 0.1uF-D
C122 0.1uF-D
C124 0.1uF-D
R107 0
R106 0
R105 0
R104 0
R116 0
R113 0
R115 0
R114 0
C107 N.M
C112 N.M
C105 N.M
C113 N.M
C119 N.M
C120 N.M
C118 N.M
C121 N.M
R108 4.7kJ
R110 4.7kJ
R117 4.7kJ
R118 4.7kJ
RTS0
TXD0
RXD0
CTS0
RTS1
TXD1
RXD1
CTS1
CRTS0
CTXD0
CRXD0
CCTS0
CRTS1
CTXD1
CRXD1
CCTS1

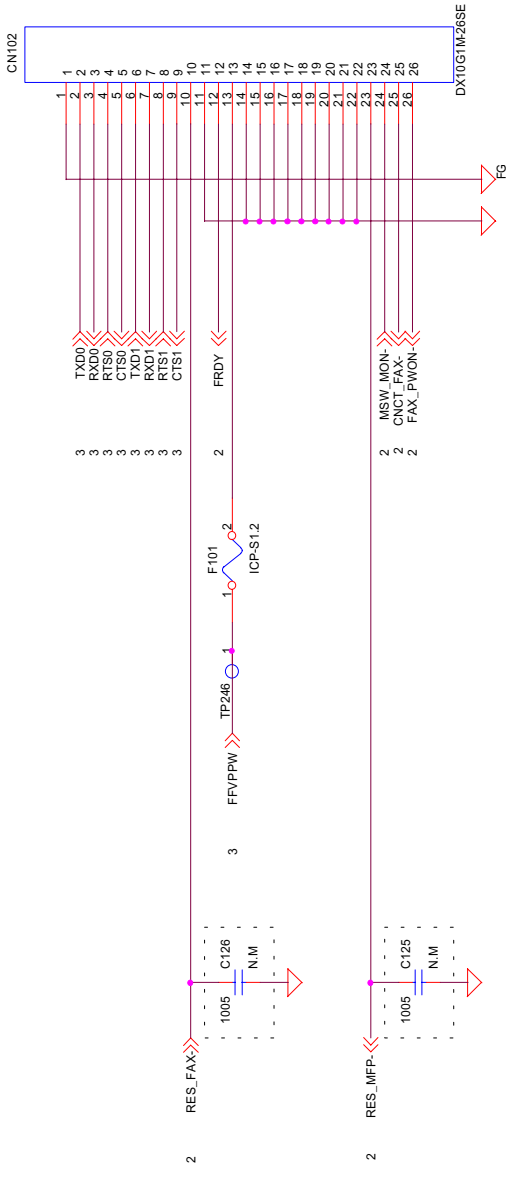
FAX I/F PWB 4


SDIMM1-32bit
CN101
MN20-72B1-1-T24
FXD[0:31]
FXA[2:22]
+3.3V
C114
0.1uF
C115
0.1uF
FRESET
RD/BY-
R111
4.7kJ
TP231
RP
RY/BY
BYTE
VCCW
VCC
GND
TP233
TP232
TP230
TP235
TP234
TP247
FMCS16
FOE2
FWE2
R112
4.7kJ
R120
N.M
R119
0
JP101
T3B-SQ
FFVPPW
FFVPPW signal should be thicker.
VCCW is supplied from MFP controller
FX_VCCW signal should be thicker.
FX_VCCW

FAX I/F PWB 5

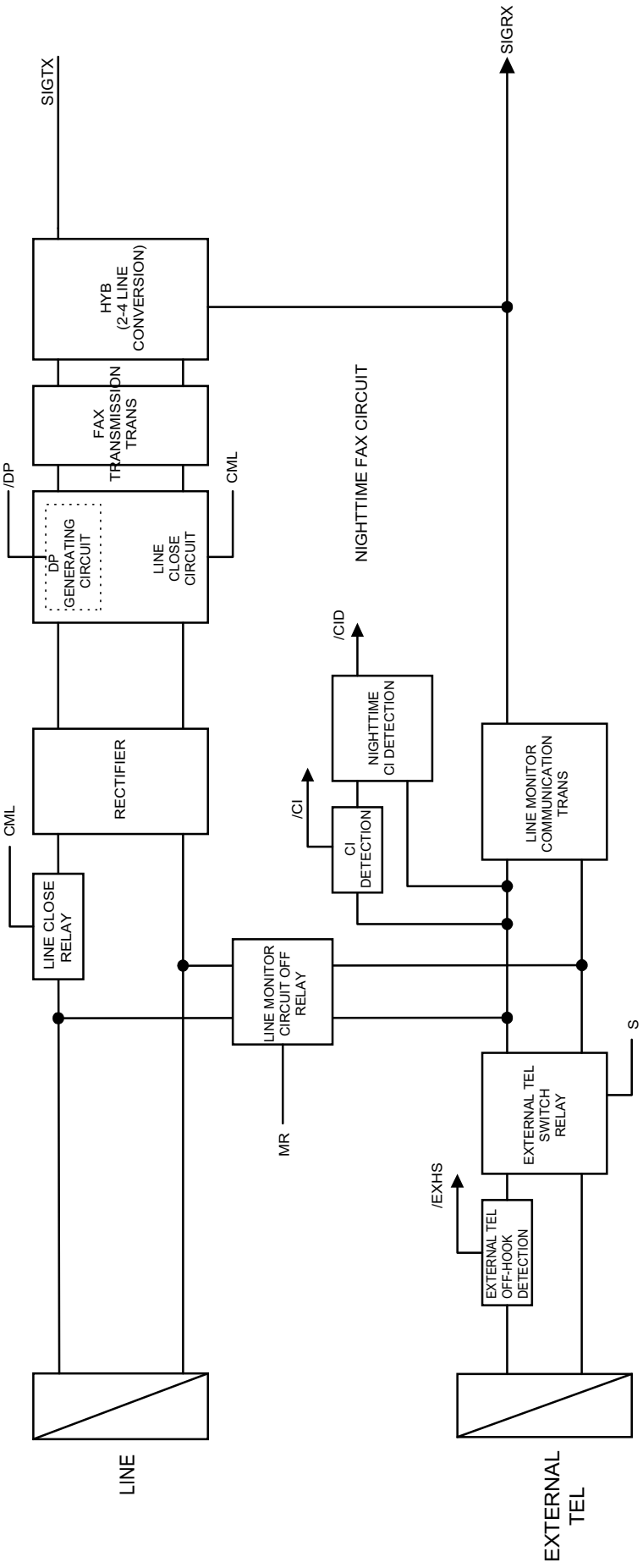

{FXD[0:31]
FXA[2:22]
IC101
IC102
LH28F800BVE-TTL90
C104
C111
C106
C103
R101
R106
R102
R109
TP205
TP217
TP206
TP218
TP212
TP213
FMCS15
FOE2
FWE2
RDBY-
FRESET

FAX I/F PWB 6

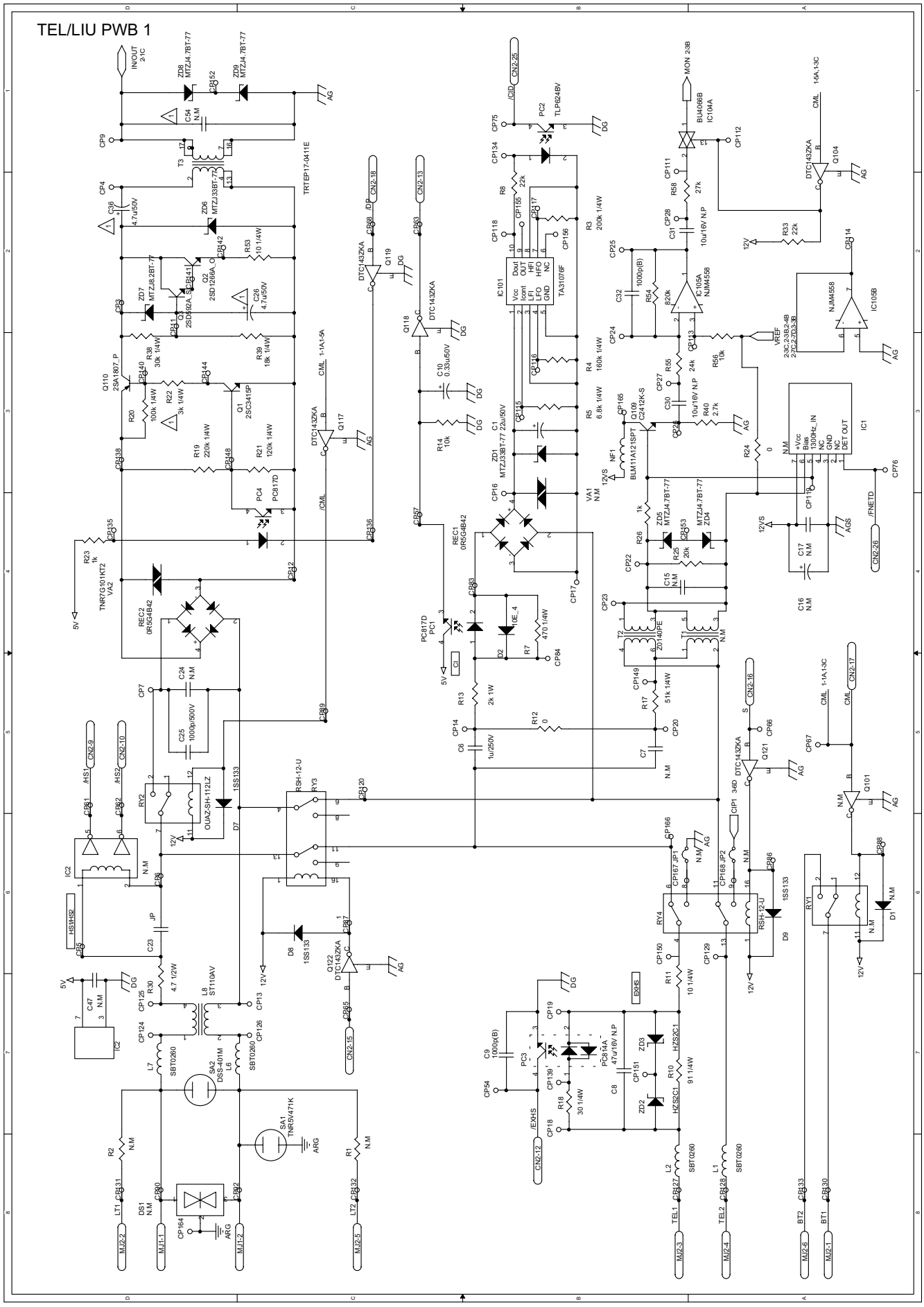

CN102
DX10G1M-26SE
FG
TXD0
RXD0
RTS0
CTS0
TXD1
RXD1
RTS1
CTS1
FRDY
MSW_MON-
CNCT_FAX-
FAX_PWON-
F101
ICP-S1.2
TP246
FFVPPW
C126
1005
N.M
C125
RES_FAX-
RES_MFP-

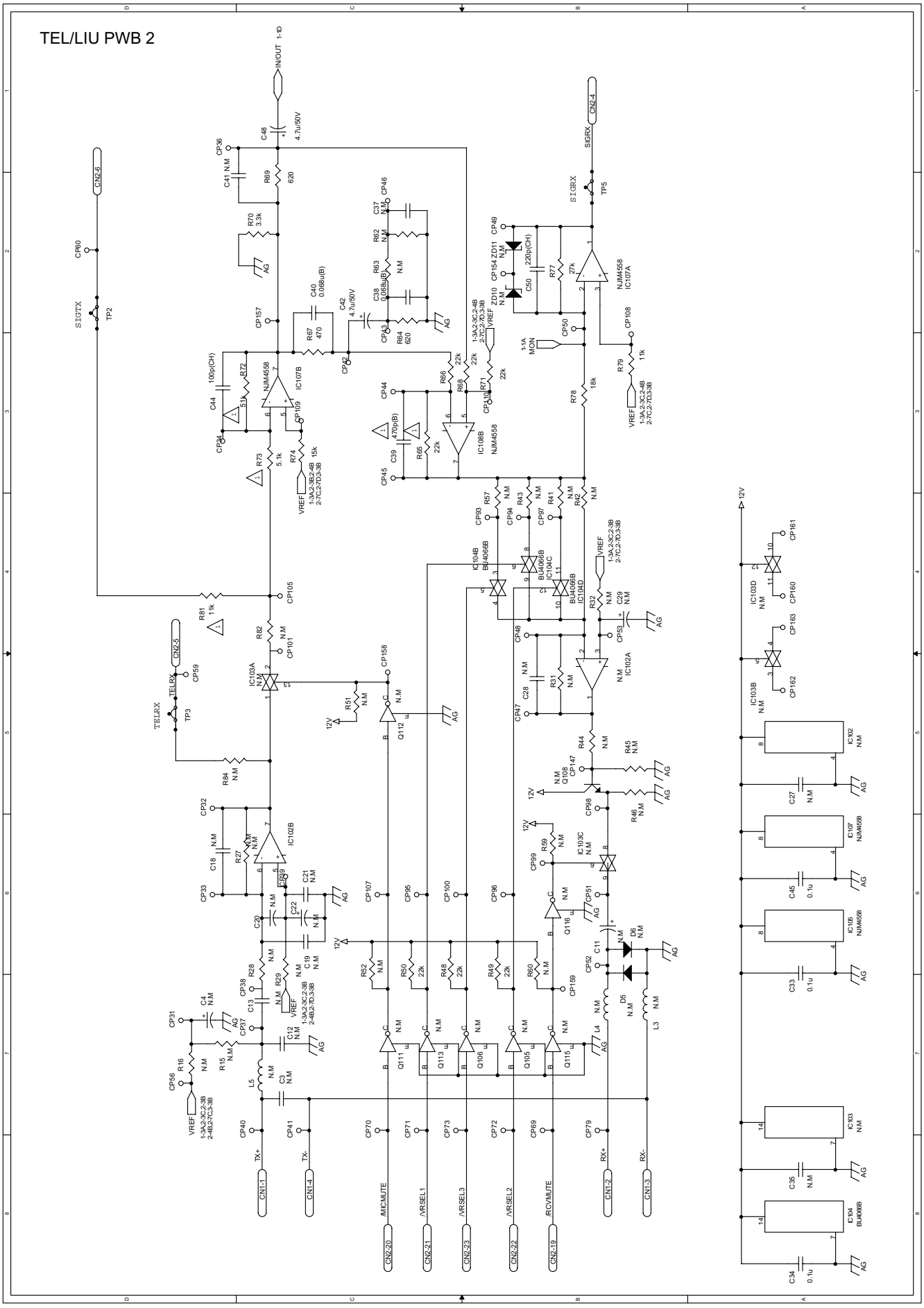
3. TEL / LIU PWB

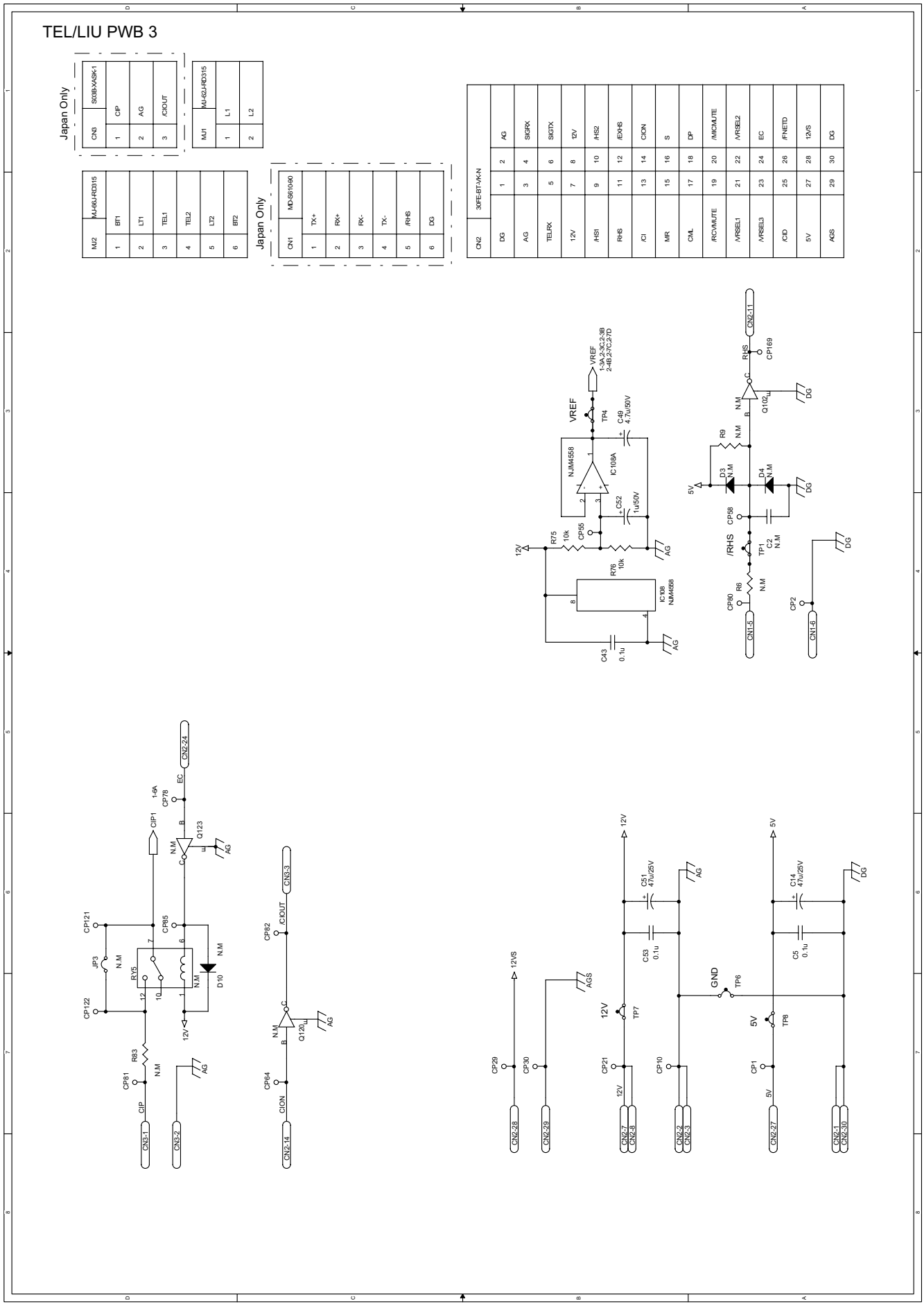
A. Block Diagram



B. Circuit Diagram




TEL/LIU PWB 2


TEL/LIU PWB 3
Japan Only
CN3 S03B-XASK-1
1 CIP
2 AG
3 /CIOUT
MJ1 MJ-62J-RD315
1 L1
2 L2
MJ2 MJ-66J-RD315
1 BT1
2 LT1
3 TEL1
4 TEL2
5 LT2
6 BT2
Japan Only
CN1 MD-S6100-90
1 TX+
2 RX+
3 RX-
4 TX-
5 /RHS
6 DG
CN2 30FE-BT1-VK-N
DG 1
AG 2
AG 3
SIGRX 4
TELRX 5
SIGTX 6
12V 7
12V 8
/HS1 9
/HS2 10
RHS 11
/EXHS 12
/CI 13
CION 14
/MR 15
S 16
CML 17
DP 18
/RCVMUTE 19
/MICMUTE 20
/VRSEL1 21
/VRSEL2 22
/VRSEL3 23
EC 24
/CID 25
/TNETD 26
5V 27
12VS 28
AGS 29
DG 30
CN2-24
EC
CP78
1-6A
CIP1
B
Q123
N.M
C
E
AG
CP121
CP85
JP3
N.M
RY5
7
6
12
10
1
N.M
D10
N.M
CP122
12V
R83
N.M
CP81
AG
CIP
CN3-1
CN3-2
CN3-3
CP82
/CIOUT
C
N.M
B
Q120
E
AG
CP64
CION
CN2-14
CP29
CP30
12VS
AGS
CN2-28
CN2-29
12V
C51
47u/25V
C53
0.1u
AG
12V
TP7
CP21
CP10
12V
CN2-7
CN2-8
CN2-2
CN2-3
GND
TP6
5V
C14
47u/25V
C5
0.1u
DG
5V
TP8
CP1
5V
CN2-27
CN2-1
CN2-30
VREF
1-3A,2-3C,2-3B
2-4B,2-4C,2-7D
VREF
TP4
C49
4.7u/50V
NJM4558
IC108A
1
2
3
C52
1u/50V
12V
R75
10k
CP55
R76
10k
AG
IC108
NJM4558
8
4
C43
0.1u
AG
CN2-11
RHS
CP169
C
N.M
B
Q102
E
DG
R9
N.M
5V
D3
N.M
D4
N.M
DG
CP58
/RHS
TP1
C2
N.M
CP80
R6
N.M
CN1-5
CP2
CN1-6
DG

CAUTION FOR BATTERY REPLACEMENT

(Danish) ADVARSEL !

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren.

(English) Caution !

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the manufacturer.
Dispose of used batteries according to manufacturer's instructions.

(Finnish) VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

(French) ATTENTION

Il y a danger d'explosion s' il y a remplacement incorrect
de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type équivalent recommandé par
le constructeur.
Mettre au rebut les batteries usagées conformément aux
instructions du fabricant.

(Swedish) VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

(German) Achtung

Explosionsgefahr bei Verwendung inkorrekter Batterien.
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder
vom Hersteller empfohlene Batterien verwendet werden.
Entsorgung der gebrauchten Batterien nur nach den vom
Hersteller angegebenen Anweisungen.

CAUTION FOR BATTERY DISPOSAL

(For USA,CANADA)

Contains lithium-ion battery. Must be disposed of properly.
Remove the battery from the product and contact
federal or state environmental
agencies for information on recycling and disposal options.

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SHARP CORPORATION
Digital Document System Group
Quality & Reliability Control Center
Yamatokoriyama, Nara 639-1186, Japan
2001 July Printed in Japan (N)